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CHEMIST AND DRUGGIST

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and all sections of the drug, pharmaceutical,
fine chemical, cosmetic, and allied industries

*Official organ of the Pharmaceutical Society of Ireland
and of the Pharmaceutical Society of Northern Ireland*

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June 11, 1966

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CONTENTS

£½-million Extension at Welwyn ...	594
Arthritics and Rheumatics ...	580
Chemists' Opening Hours ...	580
Correspondence ...	585
Leading Articles:	
Built-in Frustrations ...	587
Overseas Trade in April ...	587
New Fellows of the Society ...	589
New Products and Packs ...	583
"Open Shop" ...	588
Pesticide Names ...	579
Pharmaceutical Society of Northern	
Ireland: Council Meeting ...	589
Pharmaceuticals in West Africa ...	590
Regional Conference at Plymouth ...	578
Scunthorpe Tablet Identification Cabinet	593
Therapeutic Substances ...	579
Topical Reflections ...	577
Aids to Efficiency ...	583
A Pharmacist's Anthology	589
Branch Events ...	582
Business Changes ...	581
Coming Events ...	599
Commercial Television ...	600
Company News ...	581
Competitions ...	595
Contemporary Themes ...	599
Deaths ...	581
Expansion Projects ...	580
Instruments and Apparatus	595
Local Officers ...	577
Marriages ...	581
New Companies ...	600
Patents ...	598
Personalities ...	581
Prescribers' Press ...	600
Print and Publicity ...	599
Shopfitting Notes ...	593
Trade Marks ...	598
Trade Notes ...	584
Trade Report ...	596
World Trade ...	599

Index to Advertisers, p. 4. Classified Advertisements, p. 31.

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CHEMIST AND DRUGGIST

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Remuneration in Scotland

CLAIM FOR MORE PER ITEM

A CLAIM for increased remuneration for chemist contractors in Scotland has been lodged with the Pharmaceutical Whitley Council by the staff side of committee "B."

The claim is based on a report prepared by Associated Industrial Consultants, Ltd., from information extracted from the accounts of a representative sample of 116 chemists spanning the period April 1963 to March 1965. The staff side claims that, during the year 1964-65, the gross cost of dispensing a prescription was 122.36d., while the income was 125.64d. Comparable figures for 1965-66, brought up to date by means of statistical indices, are said to show a cost of 128.15d. against an income of 129.85d. As the margin has to cover financing current work in progress, interest on working capital, superannuation, reward for undertaking risk and a reserve against unforeseen contingencies, the staff side has assessed the margin at 9.75d. per prescription. It therefore claims that:—

(a) A retrospective payment of 6.47d. should be made to each chemist contractor in respect of each prescription dispensed between April 1, 1964, and March 31, 1965. (b) A retrospective payment of 8.05d. should be made to each chemist contractor in respect of each prescription dispensed between April 1, 1965, and March 31, 1966. (c) As from April 1, 1966, an additional payment of 8.05d. should be made to each chemist contractor in respect of each prescription dispensed, pending agreement on the amount due for the year ending March 31, 1967, to be based on figures as at September 30, 1966. In due course, the Drug Tariff should be revised accordingly. The staff side has asked that the claim should be considered at a meeting of the Whitley Committee on June 22.

Hospital Pharmacy

ANNUAL STUDY AWARD

AN annual award of up to £250 to enable practising hospital pharmacists to investigate special aspects of hospital pharmacy practice in the British Isles has been established by the Guild of Public Pharmacists in association with Merck Sharp & Dohme, Ltd. Applicants for the award may propose their own study projects or agree to undertake a project suggested by a selection board appointed by the Guild. Up to £50 to pay for the services of a locum pharmacist will be paid where

necessary. Application forms for the 1966 award, available from Mr. G. Raine, general secretary, Guild of Public Pharmacists, Pharmaceutical Department, St. George's Hospital, London, S.W.1, must be returned by July 25.

Pharmaceutical Society

PRESIDENT RE-ELECTED

MR. J. C. Bloomfield was re-elected *President* of the Pharmaceutical Society of Great Britain at the Council meeting on June 8. Mr. W. J. Tristram, when moving his re-election, described Mr. Bloomfield as the president who had been most seen in the flesh during his period of office. In replying, Mr. Bloomfield expressed his thanks and appreciation of the responsibility resting on him; he said that times were extremely stimulating and exciting for all who held office in the Society. He had a special word of thanks for the support given him by the staff. Mr. A. Aldington was reappointed *Vice-president*. Mr. H. Steinman *Treasurer*. The Committee chairmen were also elected as follows: REGISTRATION: J. E. Balmford; BENEVOLENT AND WAR AID: Miss M. A. Burr; ORGANISATION: W. J. Tristram; FINANCE AND GENERAL PURPOSES: H. Steinman; PUBLICATIONS: E. A. Brocklehurst; PRACTICE: J. P. Kerr; LAW: D. E. Sparshott; ETHICAL: W. M. Darling.

Spoons for Metric Doses

AGREED ARRANGEMENTS FOR SUPPLY

THE formulation of some of the liquid medicines in the British National Formulary, 1966, has been followed by an agreement between the Central N.H.S. (Chemist Contractors) Committee and the Ministry of Health that National Health Service patients who are prescribed preparations reformulated to the 5-mil dose shall receive a British Standard 5-mil plastic medicine measuring spoon. The spoons are to be obtainable from wholesalers and packed in cartons of 250 at 12s. 6d. per carton, including purchase tax. Reimbursement to contractors is being made by increasing the container allowance from 1.9d. to 1.91d. for prescriptions dispensed from August 1. The spoons are of clear polystyrene, stamped 5 ml.

and B.S. 3221/4. Manufacturers include Capecraft, Ltd., The Cape, Warwick, and Unit Moulders, Ltd., King George's Avenue, Watford, Herts. Deliveries are not expected at the earliest before the end of July. The eleven linctuses in the B.N.F. and the majority of elixirs and syrups have been reformulated to give a 5-mil dose. Six preparations that have not been reformulated have a 4-mil dose; for them the traditional teaspoonful label is correct, and the B.S. spoon should not be supplied. When products are prescribed for which spoons containing 3.5, 4 or 5 mls are supplied by the manufacturers, those spoons should be given to patients.

Pharmacy Technicians

GRADING STRUCTURE AND SALARIES

A NEW grading structure for dispensing assistants (who will in future be known as pharmacy technicians) is announced by the Ministry of Health. Certificates of proficiency are to be given to student technicians after one year's service and on completion of at least six months' training, and to experienced unqualified pharmacy technicians II with over ten years' experience since age twenty-one. The certificates will state that they are respectively qualified to undertake the duties of the next higher grade. The Ministry propose that the certificates of proficiency should be given by a chief pharmacist nominated by the board responsible for organising the training of the technicians. Regional Hospital Boards were asked some time ago to work out training schemes for their regions in consultation with Hospital Management Committees and Boards of Governors.



SALES CONTEST WINNER: Messrs. Jack Klein (managing director, Max Factor Hollywood and London (Sales), Ltd.) (right), and S. R. Dawson (a director of Timothy Whites & Taylors, Ltd.), congratulating Mrs. Anne Baldwin, Hemel Hempstead, "star" winner of a recent country-wide Max Factor-Timothy Whites sales contest. Mrs. Baldwin received a voucher for £26 5s. and diploma at the end of a three-day visit to London, where she and the other twenty-six winners were guests of the company.

The Ministry hope that Regional Boards will agree to nominate a chief pharmacist to issue the certificates of proficiency, and that they will welcome the opportunity of ensuring that some uniformity of practice and standards is achieved. The chief pharmacist, Ministry of Health, is co-ordinating the operation of the provisions as to the issue of certificates of proficiency, so as to obtain common standards in each region. A new grading and salary structure for the pharmacy technicians has been agreed as follows:—

Student technician, £260 to 16 to £520 maximum.

Pharmacy technician II, £321 to 18 to £663 maximum.

Pharmacy technician I, £530 to £769 maximum.

Entry to the technician I grade is being restricted to technicians with a recognised qualification, though unqualified dispensing assistants who were "in post" on January 1, 1966, are eligible for promotion to that grade if they satisfy certain conditions regarding length of service and proficiency and carry out the duties specified for the grade. Pharmacy technicians with certain special responsibilities are being paid allowances of £50 and £75. A salary addition of up to £100 may be authorised for technicians with exceptional qualifications or experience.

Suntan Preparations

THEIR EFFICACY PUT TO THE TEST

FOUR joint "best buys" in suntan preparations are chosen by *Which?* (published by Consumers' Association) in its June issue. They are of Cyclax sunproof cream ("best protection but expensive"); Soltan; Toptan suntan cream mousse; and Skol suntan lotion. No effect other than screening was tested for in the thirty-one preparations used but an assessment was made of staining of fabrics. *Which?* believes it would be useful if all suntan preparations, instead of, as at present, only the ones classified as medicines, were to declare their active ingredients. The Weights and Measures Act, 1963, is criticised for allowing the quantity to be stated in any system chosen by the manufacturer. Also reviewed by *Which?* is the Polaroid Swinger camera (considered good value for money), though an "irritatingly high proportion of failures" (one in ten) was obtained with flash pictures.

National Insurance

STARTING DATES FOR NEW RATES

THE National Insurance Act, 1966 (Commencement) (No. 2) Order, 1966 (H.M. Stationery Office, price sixpence) brings into operation from the first week in October the earnings-related supplements to unemployment and sickness benefit and widows' allowance. The new graduated contributions will also be payable at that time by employed persons aged eighteen and over and their employers. They will be at the rate of $\frac{1}{2}$ per cent. a side of earnings between £9 and £30. Tables of the new contributions are to be distributed to employers before October, but meanwhile employers wishing to consider whether the changes will

necessitate any adjustment to their accounting arrangements or office machinery may obtain a free leaflet (NI155) containing the tables and describing the new benefits from local Pensions and National Insurance Offices.

Employment Tax

RATE FOR PART-TIME STAFF

A REQUEST to the Chancellor of the Exchequer (see also C. & D., June 2, p. 547) to grant relief from the selective employment tax in respect of part-time employees in shops has been put in by the Consumer Council. The Council considers that the tax, by discouraging the employment of part-time labour will tend to lessen the prospect of extended shopping hours.

A Village's Closing Hours

APOLOGY TO A CHEMIST

ALLEGATIONS by parish council members at Eckington, Sheffield, that people in the village dared not be ill on Wednesdays or after 5 p.m., because neither of two chemists was open to dispense prescriptions, have been found to be unjustified. The council's clerk has reported that investigations had shown that the chemists worked together to provide a satisfactory service during the evenings and that one chemist would be open on alternate Wednesday afternoons. The council agreed to ask the other chemist if he would consider changing his half-day to either Tuesday or Thursday and to send to the first chemist an apology.

Co-operative Employees

MORE HOLIDAY FOR SHOP STAFFS

AN award to retail employees of Co-operative societies from 1969 provides for a minimum of three weeks' annual holiday with pay to all workers with twelve months' service immediately preceding March 31 of the holiday year, with *pro rata* adjustments. In 1967 employees with two years' service will get an extra two days, those with five years' service three days, and those with ten years' service one week.

Smallpox Eradication

TEN-YEAR CAMPAIGN BY W.H.O.

A TEN-YEAR programme for the eradication of smallpox was approved by the nineteenth assembly of the World Health Organisation in Geneva on May 13. Its aim is 1,790 million vaccinations in order to clean up the epidemic zones in Asia, Africa, and the Americas, the permanent sources of infection for the rest of the world. The cost to W.H.O. is expected to be \$25-30 millions.

Conference Meeting 1966

PROFESSIONAL SESSION SUBJECTS

IT was announced at the Pharmaceutical Society Council meeting on June 8 that the recommended subjects for the professional sessions at the Manchester Conference in September should be:—"Reorganisation of the Branch System," speaker Mr. W. J. Tristram, and "New Medicines Legislation" on which the president would be the speaker.

NEWS IN BRIEF

EIGHT tons of pharmaceutical products has been sent to South Vietnam as aid by Western Germany.

A NEW edition of "Dust and Fumes in Factory Atmospheres" (H.M. Stationery Office, price 2s.) has been published by the Ministry of Labour.

A QUANTITY of Drinamyl tablets was stolen from the pharmacy of Houghton & Lappin, Ltd., 76 St. James Street, Liverpool, recently.

EXECUTIVE Councils are being asked by the Ministry of Health to provide details of chemists, drug stores and appliance contractors who submitted prescriptions issued during 1965.

THE Society of Cosmetic Chemists of Great Britain has elected Dr. A. W. Middleton *President*, Mr. D. E. Butterfield *Vice-president* and Dr. J. J. Mausner *Secretary* for 1966-67.

THE separation of biological materials is the subject of the latest issue of the *British Medical Bulletin*, published by the British Council, 65 Davies Street, London, W.1 (price 30s.).

A REPORT of a colloquium on biochemistry in industry has been published (price 2s. 6d.) as a 42-p. booklet by the Biochemical Society, 20 Park Crescent, London, W.1.

THE Consumer Council has represented to the Chancellor of the Exchequer that it would be easier for consumers to adjust themselves to the 10s.-cent system than to the 5-cent- $\frac{1}{2}$ system that the Government proposes to adopt.

A THIRD edition of the Factory Inspectorate booklet "Method for the Detection of Toxic Substances in Air: Organic Halogen Compounds," has been published by H.M. Stationery Office (price 1s. 9d.).

MIDNIGHT marauders were foiled from entering the premises of P. Williams (Chemists), Ltd., 102 Victoria Street, Crewe, Ches, recently, because Mr. J. Williams, a director, happened to call at the shop for some medicine.

"ASSAY of Strontium-90 in Human Bone in the United Kingdom: Results for 1965, part 1, with some further results for 1963 and 1964" (Medical Research Council Monitoring Report Series, No. 12) has been published by H.M. Stationery Office (price 2s. 3d.).

THE Royal Society and Royal Geographical Society are considering jointly sponsoring scientific investigations in the little known interior of Matto Grosso in mid-west Brazil. Matto Grosso is an important source of ipecacuanha.

"WOMEN in Medicine," the report of an inquiry conducted by the Medical Practitioners' Union into the utilisation of women doctors, has been published (price 35s.) by the Office of Health Economics, 62 Brompton Road, London, S.W.3.

A "NATIONAL plan for health," involving concerted action by everyone actively engaged in safeguarding the nation's health, is urged by Aspro Nicholas, Ltd., after detailed study of their survey into attitudes to health and home medication undertaken in 1965 (see C. & D., January 1, 1966, p. 18).

ACCOMMODATION for the Medical Research Council's reproduction and growth research unit was officially opened at the Princess Mary Maternity Hospital, Newcastle upon Tyne, on May 6. The unit will be concerned with the biochemical and physical adjustments which a mother undergoes during pregnancy.

SPORT

Golf

LONDON CHEMISTS' GOLFING SOCIETY.—A meeting was held at Hadley Wood golf club on June 1. Results: *Widaacks Memorial trophy*, 1, M. Lewis (Shirley Park), 42 points; 2, S. M. Hutchinson (Royal Blackheath), 38 points; 3, C. J. Martin (Ilfeld), 37 points. *Scratch to Fourteen Handicap prize*, H. James (Laleham), 36 points. *Babby Locke trophy (Fifteen and Over Handicap)*, W. E. Foster (Woodcote Park), 36 points. *Best Score on First Nine Hales*, J. F. Needham (Effingham). *Best Score on Last Nine Hales*, J. L. Wrathall (Shirley Park). *Special prize*, G. Philp (Langley Park), 34 points. *Visitors' prizes*, 1, C. Hughes (Shirley Park), 39 points; 2, F. Dawes (Shirley Park), 35 points; 3, D. Chapman (Couslond Court), 35 points.

SOUTH LONDON AND SURREY PHARMACISTS' GOLFING SOCIETY, at Kingswood golf club on June 1. Results: *Widaacks Memorial trophy*, 1, M. Lewis (Shirley Park), 42 points; 2, S. M. Hutchinson (Royal Blackheath), 38 points; 3, C. J. Martin (Ilfeld), 37 points. *Scratch to Fourteen Handicap prize*, H. James (Laleham), 36 points. *Babby Locke trophy (Fifteen and Over Handicap)*, W. E. Foster (Woodcote Park), 36 points. *Best Score on First Nine Hales*, J. F. Needham (Effingham). *Best Score on Last Nine Hales*, J. L. Wrathall (Shirley Park). *Special prize*, G. Philp (Langley Park), 34 points. *Visitors' prizes*, 1, C. Hughes (Shirley Park), 39 points; 2, F. Dawes (Shirley Park), 35 points; 3, D. Chapman (Couslond Court), 35 points.

IRISH CHEMISTS' GOLFING SOCIETY, Killarney player P. Vaughan, Listowel (handicap 12) stole the honours at the four-day outing of the Society at Ballybunion by carrying off the captain's prize with a score of 44. Seventy-five players did battle for the trophy and on final night eighty-two sat down to dinner in the Castle hotel, where the prizes were presented by the captain (Mr. Frank Reen). This year, for the first time, a father and son (Tom and Jim Brosnan, Kenmare) took part in the competition. All prizes on the opening day were donated by Imperial Chemical Industries, Ltd., and Mr. A. C. Martin, on behalf of the company, later presented them to the winners. Results: May 22, *I.C.I. prizes* (nine holes), *Strakes*, P. Vaughan (14), 36; M. Dougan (14), 38. *Par*, B. R. Smith (10), 1 down; J. Britton (13), 3 down. *Class A*, J. Hanley. *Class B*, H. Palmer. May 23, *Class A*, S. O'Neill (12), 1 down; D. Mulvey (8), 1 down; T. Dooley (12), 3 down; *Class B*, J. Cranitch (17), 6 down; P. Twohig (16), 6 down; M. Moloney (18), 8 down. *Handicap nineteen to twenty-four*, A. C. Martin. May 24, *Committee prizes*, J. Hanley (6), 73. *Strakes*, P. Fahey (8), 76; A. C. Hennessy (11), 76; A. Walsh (11), 76. *Par*, D. McHugh (10), 4 down; R. Daly (9), 5 down; M. Prendergast (7), 5 down. *Handicap nineteen to twenty-four*, W. F. M. Keys. May 25, *Captain's prize*, P. Vaughan (12), 44. *Class A*, S. O'Neill; J. Brosnan; J. Glynn; D. O'Connell. *Class B*, E. Rogers; J. O'Keeffe; J. Lennon; J. P. Burke. *Past Captain's prize*, J. T. Foley. Next outing is at Dollymount on June 16.

LOCAL OFFICERS

PHARMACEUTICAL SOCIETY

Chester.—*Chairman*, L. Edwards; *Vice-chairman*, T. Hughes; *Treasurer*, R. H. Wright; *Social Secretary*, Miss M. G. Short, Garden City Pharmacy, Queen's Ferry, Chester; *Secretary*, P. R. Garner, Penrhyn, 50 Richmond Crescent, Vicars Cross, Chester.

Edinburgh and South-eastern Scottish.—*Chairman*, Miss D. I. L. Locker; *Vice-chairman*, W. K. Lawrie; *Treasurer*, J. H. Henderson; *Secretary*, D. MacMurray, 39 Little Road, Liberton, Edinburgh, 9.

Glasgow and West of Scotland.—*Chairman*, Miss E. A. Meikle; *Vice-chairman*, J. Stewart; *Social Secretary*, D. C. Mair, 19 Woodside Road, Craigshien Estate, Carmunnock, Clarkston, Glasgow; *Assistant secretary*, I. M. W. Caldwell; *Treasurer and Secretary*, Dr. J. Chilton, 39 Alexandra Road, Lennie, Kirkintilloch, Glasgow.

TOPICAL REFLECTIONS

By Xrayser

Student membership

Close on half a century ago, when I gave hostages to fortune by deciding that pharmacy might offer a career of usefulness and interest, it was necessary for me to take certain positive action—action that included the finding of an apprentice-master possessed of a measure of forbearance, and an application, accompanied by a small fee, to a remote society in Bloomsbury asking that they would take notice of a momentous decision by formally registering me as, I think, an apprentice or student. My recollection is that the fee was the trifling sum of 10s. 6d.—a mere bagatelle that could be recovered in only two and a half weeks of work at the prevailing rates. The acceptance of my application (and of the trifling sum) was also a recognition of the fact that I had achieved the requisite standard of general education which, in turn, implied that my future was not without hope. I felt that the Pharmaceutical Society had shown, however impersonally, an awareness of my existence, which even extended to the publication of my name in the official journal of that body. At the same time I experienced a feeling of belonging, even in a minor way, and a tenuous link was formed between a learned professional body and a possible future president. In that manner I was aware, from my earliest association with pharmacy, of the Society, and—to a lesser degree perhaps—the Society was aware of me. It is right that one should belong to one's professional body and be a living part of a living whole, and that the association should begin at the earliest possible moment and continue throughout life. There is a common interest, which can be fostered only through a common bond. At the time of which I write, all traversed the same long and hard road and in due course met a forbidding array of monsters, known as the Board of Examiners, who stood between the candidate and full recognition and registration by the Society. Their resistance constituted a defence in depth, but that it could be penetrated was evident on all sides, and I was one of those who in due course successfully crossed the barbed wire.

The student of today

Most of that autobiographical preamble is necessary if we are to appreciate the nature of the resolution put to the Branch Representatives' meeting by Dr. J. Chilton of Glasgow. Like many others, Dr. Chilton is concerned over the lack of association between the present-day student and what should be *his* Society. The Pharmaceutical Society's position in modern life is not as it was in my early days. It no longer demands student registration. It has almost ceased to be an examining body. The universities prepare students of the ancient art for graduation within their own walls and, unless his future lies in general practice, the graduate may ignore what is, and should be, his own professional organisation. That is undesirable on all counts. Clearly, contact should be established at the earliest possible moment and, I think equally clearly, the Council of the Society must hold out a helping hand, both in the interest of the student and of the Society itself.

Ways to attract

There are several possible ways of securing the interest and affiliation of the student. There might be compulsory registration, though I note that the movers of the resolution were not in favour of such a step. There is also the possibility of offering student-associate membership, including the official journal, at a nominal rate. (The objection on the score of expense does not weigh with me. It would be a worth-while experiment in public relations at less cost and with better prospects than some that have been contemplated.) And finally there is the vitally important need for a liaison between the local branch of the Society and the universities and their students. The presence of the teaching pharmacist at branch committee level is a possible and desirable link. And there might be a student committee working in co-operation with that branch, so that the views of undergraduates would have an opportunity of being heard. The student must "belong" and he must feel that he is welcome.

Regional Conference at Plymouth

THREE SPEAKERS ON "BLUEPRINTS FOR THE FUTURE"

THE need for more pharmacists in fewer pharmacies, larger units with comprehensive stocks to replace smaller units, and gradual increase of professional work from the present one-third of the working day, were stressed by Mrs. E. J. M. Leigh (a member of the Pharmaceutical Society's Council) at the first regional conference of South-west England pharmacists held in Plymouth on June 5. Theme of the conference was "Blueprints for the Future," and other speakers were Messrs. J. R. Dale (chief inspector, Pharmaceutical Society) deputising for Mr. F. W. Adams, and J. Wright (secretary, National Pharmaceutical Union). The conference was attended by about seventy members of the Bristol, Cornwall, Exeter, Plymouth and Torquay Branches of the Society and National Pharmaceutical Union.

Adapting to Changes

MRS. LEIGH believed that pharmacists must adapt themselves to the rapidly changing patterns of life, training and work. They must work more and more as a team, whatever branch of the profession they might be in. They must ensure that their professional services were available at all times (maybe in restricted form), for a just reward. The pharmacist's highly specialised and expensive training fitted him for a career in any branch, but every effort must be made to provide what the public needed. "The public wants a service of good quality available to all, at a price it can afford—it wants the right medicines in the right form with the right safeguard at the right time in the right place." The individual pharmacist carried the responsibility for the impact pharmacy had on the public, and his standards must therefore be high. With the increasing complexity of new drugs came a need for continuous education, and Mrs. Leigh hoped many pharmacists would be able to study for post-graduate qualifications. She would like closer liaison between colleges and pharmacists whether in hospital or general practice.

The Society had kept pace with trends in its educational policy, but additional services might be necessary in the future. She would not be satisfied until the supply and sale of medicines was in the hands of those trained to handle them. People outside pharmacy were realising some of the dangers of misuse of drugs. How many realised that the pharmacist was the barrier between medicines and the public? If the profession were to retain and extend its privileges under the law, then its responsibility and service to the public must be paramount. Such a service could not be given by a small unit controlled by a single pharmacist. Rural areas might be served by collection and delivery points organised by the nearest group. A group co-operative finance company, founded on professional pharmacy and not solely on commercial interest seemed a logical development.

About 80 per cent. of all pharmacists in Britain were in general practice and in that field Mrs. Leigh said she would like to see (1) restriction of the sales of all medicines to pharmacists; (2) a ban on all advertising of medicines to the public; (3) planned distribution of pharmacies; and (4) a change in the law so that non-pharmacists could not own pharmacies.

Where doctors moved their practices into a local authority health centre it was imperative that arrangements should be made for a group pharmacy nearby. The public would also have to make adjustments, for they could not expect to find a comprehensive group pharmacy at every street corner.

Some thought there was a conflict between the thoughts of the Society and those of the N.P.U., but she believed that it was one of detail and timing. The Society must plan in the long term for all pharmacists, whilst the N.P.U. had the job of keeping today's retail pharmacies viable. "We clash, particularly over the use of restrictive titles in advertising, but we have now much greater co-operation and consultation than ever before."

In the hospital service there should be an experienced pharmacist at the Ministry of Health solely responsible for advising on day-to-day practical problems by hospital pharmacies. There should be appointments of hospital pharmacists with practical experience who would visit the regions like a business executive visiting his branches.

The Society's man-power survey showed that there would be a grave shortage of experienced male pharmacists in the future, and arrangements must be made for married women to return to part-time work. Some might need revision classes and all would need a helping hand and adequate remuneration.

MR. DALE, who spoke next, said that the title of the conference might lead one to suppose the speakers had devised a foolproof plan which had only to be followed to lead to a pharmaceutical Utopia. He was doubtful about forecasting the future, but would try to assess the way things seemed to be going.

Not as Expected

One object of the Society's Charter being "to maintain the honour and safeguard and promote the interests of the members in the exercise of the profession of pharmacy," it would be reasonable to expect in that field progress commensurate with the increased standing of the qualification. That had not been so. The tendency in recent years had been for the pharmacist to acquire more knowledge and to use it in less professional surroundings in the chemist's shop.

It was hardly surprising that there had been a spate of motions critical of the Council. Numerous demands for special meetings reflected dissatisfaction at the existing state of affairs, even if they did not always indicate what

members really wanted. No standard and no control (apart from premise registration) had ever been applied to pharmacies. Freedom to open a pharmacy where one liked was regarded as a deep-rooted privilege, and there was reluctance to accept any interference with it. Controls had been advanced at Branch Representatives' meetings for the past fifteen years, always—until recently—to be rejected. The pharmacy department in the departmental store had hitherto been accepted indulgently as something of a curiosity—an exception to the general rule. The prospect of numerous pharmacy sections in supermarkets, with self-service for medicines, blatant advertising and aggressive selling methods, however had been too much for the average pharmacist. Clearly the continued application to pharmacy of the rules of the market place was tending to debase the profession, to the detriment of the public as well as the pharmacist.

A Council Responsibility

The Council was charged with preparing a detailed scheme for providing a first-class pharmaceutical service combined with better conditions for pharmacists. A body having statutory authority was envisaged that should be able both to determine the siting of new pharmacies and to encourage the grouping together or resiting of existing pharmacies. For that, financial powers would be required. Till now registrations had been accepted in districts already adequately served or in new areas where the pharmaceutical work was insufficient. Consequently sidelines had been taken on that had no connection with pharmacy.

It was fairly safe to forecast that the co-operation more evident in recent years between bodies representing pharmaceutical interests would continue. There had been constant pressure from pharmacists for the Society to be more actively associated in National Health Service matters. Those matters were, of course, chiefly the concern of the Central N.H.S. (Chemist Contractors) Committee but the Society was "less on the sidelines" than it used to be.

In the long run the members of the Society made the running and changes in opinion were not easy to predict. For instance, in 1963 a special Branch Representatives' meeting had approved the recommendations concerning advertising in the report on the General Practice of Pharmacy. At this year's meeting a Council document, intended to consolidate the rules about advertising, had been amended, words prohibiting the use of restricted titles in advertisements being deleted. "Let us hope that when the Council produce their plan for the distribution of pharmacies a future meeting will not be so capricious."

MR. J. WRIGHT, when his turn came, said he was going to be "something of a devil's advocate." He questioned the feasibility of restricting the retail distribution of medicines to retail phar-

macy. Would Parliament ever agree to such legislation? He thought not. The whole trend of its thinking was to do away with anything bordering on monopoly or restrictive practices. There were between 100,000 and 150,000 retail outlets currently selling medicines. Was it likely that their right would be taken away from them by law? He was sure that the "big vested interests" were ready to do battle, invoking the relevant part of the Chemists' Federation judgment (in which Mr. Justice Devlin said, among other things, "... there was no distinction between a sale by a chemist and one by an unqualified person unless the chemist was told of the condition and given the opportunity of exercising his skill"). Even assuming the law were changed, was that going to be a panacea to cure all the chemists' problems? He quoted from an address given by Mr. G. Teeling Smith (*C. & D.*, March 21, 1964, p. 290), that if all medicines were sold by pharmacies there would be an increase of turnover of only 10 per cent. He thought it equally unlikely that Parliament would agree to the restriction of pharmacies. The number of registered premises had been steadily falling since 1955-56. Perhaps changes in N.H.S. Regulations should be sought to give Executive Councils discretionary powers. He agreed that "nylons and jewellery" were not suitable merchandise for chemists, but it was sensible that chemists should look after their photographic business. Brightening up and modernising businesses was desirable and more should be done in training assistants. Now that the N.P.U. had more accommodation they expected to introduce other services.

Replying to some of the points made, MRS. LEIGH said that legislation would not come because pharmacists wanted it but from pressure from the public. It was the task of pharmacists to make the public aware, through consumer councils and other organisations, of the dangers of the present situation. The Society was looking to the future. The N.P.U. must of necessity be more closely engaged on today's problems.

Discussion

When the meeting was opened for questions MR. J. REYNOLDS, Plymouth, called for comments on doctors' dispensing under the new scheme (*C. & D.*, May 14, p. 470). MRS. LEIGH said two things had been gained for pharmacists. Doctors had agreed to the principle that their function was to prescribe and that of the chemists to dispense; and the Minister had granted the right of appeal to him in the event of dispute. MR. WRIGHT said the doctor in the country often ignored the advice of his leaders. Certainly there was the right of appeal, but it was more important that the dispensing committees should do their job properly. There would then be no need to appeal. The Central N.H.S. Committee would, if necessary, take to court any Executive Council that refused, after a referendum, to abide by the decision. That had been done in South Wales; in North Wales they had recently secured the transfer of 1,500

names from doctors' lists to prescribing lists.

MR. K. J. WADGE, who asked what progress had been made in representations to the Government on the "payroll" tax, was told by MRS. LEIGH that the Society had asked for special treatment for certain pharmacists, but was more hopeful of success on the question of part-time employees. MR. WRIGHT emphasised that point. There had been some criticism, he said, on the "stock" letter sent of the suggested lobbying by N.P.U. members of their local Members of Parliament (*C. & D.*, June 4, p. 547), but similar pressure on resale price maintenance had brought M.P.s to a fuller awareness of the position. Mr. Wadge also wanted advice on advertising in a church magazine and an acceptable form of signs. Both MR. WRIGHT and MR. DALE said such advertising was often "a waste of time" and advised Mr. Wadge to resist pressures to advertise that way. Mr. Dale suggested that the word "Pharmacy" in an outside sign was preferable to "Chemist."

MR. H. W. H. PAYNE, Exeter, wanted to know what steps were being taken to offset the "payroll" tax burden in payments for N.H.S. MR. WRIGHT said the Union's consultants had been

asked to obtain information, and the extra cost of the tax would be included in the cost factor for providing the pharmaceutical service. MR. E. J. SAULTER, Cornwall, asked what inducement could be provided for a young pharmacist to practise "pure" pharmacy. At the present rate of N.H.S. payment he had calculated that 5,000 prescriptions a month brought a net profit of only £700 a year in a business employing two girls and one pharmacist. MR. WRIGHT said he could not reconcile Mr. Sauter's figures with the most recent annual figures for the country.

In opening the conference, MR. A. G. MERVYN MADGE had read a letter from Mr. F. W. Adams expressing regret that pressing problems had prevented him from attending. Mr. Madge said it was regrettable that the change had been made at so short a notice, but they thanked Mr. Dale for stepping into the breach. At the morning session Mr. E. W. Chanter (chairman, Plymouth Branch of the Society) presided, and MR. P. L. COHEN (chairman, Plymouth Branch, N.P.U.), chaired the afternoon session. A proposal to hold a similar conference in 1967 was approved. There was a majority vote for Plymouth as the venue.

THERAPEUTIC SUBSTANCES

New regulations

THE recently published Therapeutic Substances (Manufacture of Antibiotics) Regulations, 1966 (H.M. Stationery Office, price 1s. 9d.) add amphotericin B, the lincomycins, neomycin, vancomycin, certain tetracyclines and derivatives thereof which are intended for parenteral injection to the list of substances to which Part I of the 1956 Act applies and imposes standards for them. The Therapeutic Substances (Manufacture of Enzymes and Enzyme Inhibitors) Regulations, 1966 (price 1s. 6d.) consolidate and amend regulations of 1963 and 1964 and apply to hyaluronidase, streptokinase, streptokinase-streptodornase and hepararin, and preparations of them. The Therapeutic Substances (Manufacture of Preparations of Human Blood) Amendment Regulations, 1966 (price tenpence) amend an earlier regulation by including a provision as to blood obtained otherwise than by withdrawal and by adding special provisions relating to human fibrinogen, plasma protein fraction and human gamma G-immunoglobulin. The Therapeutic Substances (Manufacture of Dextran Injections) Regulations, 1966 (price eightpence) replace 1963 Regulations and encompass a wider range of dextran injections. The Therapeutic Substances (Manufacture of Vaccines, Toxins and Antigens) Regulations, 1966 (price eightpence) amend 1963 and 1965 regulations relating to the testing of smallpox vaccine and pertussis vaccine. Provisions relating to labelling of containers of less than 2.5-mil capacity are also amended. The Therapeutic Substances (Manufacture and Importation) General (Amendment) Regulations, 1966 (price fivepence) relate to the composition of containers of therapeutic substances, seals and method of sealing. An appli-

cant for an import licence is no longer required to be the sole accredited agent of the manufacturer for the import of the substance covered by the licence. The Therapeutic Substances (Manufacture of Hormone Products) Regulations, 1966 (price 1s. 9d.) consolidate with amendments 1963 and 1964 regulations and provide for standards, tests and labelling of insulin, pituitary posterior lobe, corticotrophin and chorionic gonadotrophin and their preparations. All the new regulations are effective from June 1.

PESTICIDES

Suggested common names

COMMENTS on the following suggested names for pesticides are sought by the British Standards Institution. They should be addressed to Mr. D. G. Berry, B.S.I., 2 Park Street, London, W.1, to arrive before August 11.

PROPOSED	
COMMON NAME	CHEMICAL NAME
Amidithion ¹	dimethyl S-(N-methoxyethyl-carbamoylmethyl) phosphorothiolothionate OO-dimethyl S-(N-methoxyethyl-carbamoylmethyl) phosphorodithioate
Chlorfenac ²	2,3,6-trichlorophenylacetic acid
Chlorthat	2,3,5,6-tetrachloroterephthalic acid
Hydrazolon	4-(2-chlorophenylhydrazono)-3-methyl-5-isoxazolone 3-methylisoxazoline-4,5-dione 4-(2-chlorophenylhydrazono)
Isolan	1-isopropyl-3-methylpyrazol-5-yl N,N-dimethylcarbamate
Lenacil	3-cyclohexyl-6,7-dihydro-1H-cyclopentapyrimidine-2,4 (3H,5H)-dione
Naled	1,2-dibromo-2,2-dichloroethyl dimethyl phosphate
Nichlorfos	4-chloro-3-nitrophenyl dimethyl phosphorothionate O-(4-chloro-3-nitrophenyl)

	<i>OO</i> -dimethyl phosphorothioate
Niclosamide ²	<i>N</i> -(2-chloro-4-nitrophenyl)-5-chlorosalicylamide
Nitrofen	2,4-dichlorophenyl 4-nitrophenyl ether
Promecarb ⁴	3-methyl-5-isopropylphenyl <i>N</i> -methylcarbamate
Propineb ⁵	zinc propylenebisdithiocarbamate.
Quino-methionate ⁶	6-methyl-2-oxo-1,3-dithiolo [4,5- <i>b</i>]quinoxaline diethyl <i>O</i> -(2-methylquinolin-4-yl) phosphorothioate
Quinothion	<i>OO</i> -diethyl <i>O</i> -(2-methylquinolin-4-yl) phosphorothioate

¹ The name medithionate was previously proposed for this compound.

² The name fenac was previously proposed for this compound.

³ The name clonitralide was previously proposed for this compound.

⁴ The name minacide was previously proposed for this compound.

⁵ This name is likely to be accepted as the ISO recommended common name, in which case the currently recommended British Standard common name mezinab will be withdrawn.

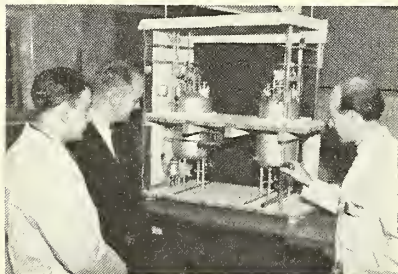
⁶ This name is likely to be accepted as the ISO recommended common name, in which case the currently recommended British Standard common name oxythioquinox will be withdrawn.

EXPANSION PROJECTS

AN additional automatic aerosol filling line has been installed by DCMC/Bardro Aerosol Packing Co., Ltd., at their Haverhill, Suffolk, factory. The equipment, which was built in Italy, is capable of filling several million aerosols in a year.

SYNTEX Corporation are building a new chemical plant in Freeport, in the Bahamas, at an estimated cost of about \$5 millions. The plant is designed to turn out the full range of bulk speciality products of the company and is expected to begin operations in September 1967.

A MODERNISATION and expansion programme costing £1 million is announced by Dista Products, Ltd., Speke, Liverpool. It is planned to double the company's present antibiotic capacity by introducing automatic control of the fermentation processes and using a computer of advanced design, first to improve yield and then to increase productivity. New filtration units



A model of plant which is to be installed as part of the expansion programme being examined by some of the company's technical staff.

and an additional air compressor with improved power supply facilities will also be included. Construction work on the project is starting immediately and should be completed within eighteen months. Antibiotics in production include streptomycin, penicillin, erythromycin and Tylosin (a new veterinary antibiotic). Over half the company's output goes to export markets.

ARTHRITIS AND RHEUMATISM

Report of research council

MORE than £121,000 towards sixty-three projects was contributed in 1965 by the Arthritis and Rheumatism Council for Research, says the Council's annual report.

Salicylates and Protein Synthesis

One subject investigated during the year in the unit on drug metabolism was the effects of salicylates on protein synthesis. Quite small concentrations have been found in rheumatic patients receiving salicylate therapy, to inhibit the incorporation of radioactive amino acids into protein. Salicylate blocks the incorporation of labelled leucine into the protein both of rat diaphragm muscle and of various cell-free preparations from rat liver. The same effect occurs in a microsomal system supplied with an exogenous energy source, suggesting that it must be due to an action other than the uncoupling of oxidative phosphorylation reactions. Work is continuing on the amino-acid composition of isolated animal tissues and on the mechanism of inhibiting glutamate aminotransferases by salicy-

late, preliminary results indicating that salicylate competes with the oxo- and amino-acid substrates of the enzymes.

As an extension of earlier *in vitro* work, the transfer of radiocarbon from labelled substrates into the proteins, nucleic acids, fats, glycogen, organic acids and amino acids of the brain and liver of the mouse is being studied under *in vivo* conditions. A number of potentially important interactions of salicylates with oxidative phosphorylation reactions and with aminotransferase and dehydrogenase enzyme systems have been revealed. Research is being done into the effects of salicylate and its chemical congeners on human red-cell metabolism.

At Charing Cross Medical School and the Kennedy Institute of Rheumatology, West London Hospital, fluorimetric methods of estimating cortisol levels in blood have been developed and possibly safer methods of withdrawing corticoids investigated. Treatment with corticotrophin, thought to be better in some respects than oral corticosteroids, is being tried.

CHEMISTS' OPENING HOURS

"Which?" urges revisions

RECOMMENDATIONS that chemists should provide a properly organised twenty-four-hour "on call" service, that details of rota services should be more widely publicised, and that rotas should be replanned to make the maximum distance between a surgery and a pharmacy less than one mile, are contained in the June issue of *Which?* published by Consumers' Association.

The recommendations result from an investigation by the Research Institute for Consumer Affairs mainly in Cambridge, Watford and Islington. Questionnaires were sent to all pharmacists in each area and to a geographical sample of doctors' surgeries in each place. Sixty-five replies were received from 116 pharmacies and thirty-five replies from forty-eight surgeries. Two Hertfordshire villages were also investigated.

The report quotes paragraph 52 of the report on the General Practice of Pharmacy that "... it is reasonable for any person attending an evening surgery to obtain his medicine the same evening, whether it is urgent or not," and points out that some patients in all three places have been unable to obtain their medicine until the next day. "Pharmacists did, however, seem to make it a matter of professional pride to ensure, if it was humanly possible, that all prescriptions that did reach them were dispensed the same evening." The inquiry also showed that, financially, a pharmacist had little inducement to remain open.

The report also recommends:—

General practitioners and pharmacists should co-operate to see that the pharmacy on the rota is open till half an hour after surgeries end.

The regulations that shops should display their normal opening hours and when closed, information as to the nearest rota

pharmacist open, should be complied with.

All Executive Councils... should issue lists giving closing times of all pharmacies, both rota and non-rota: this information should be available in doctors' surgeries, police stations, old people's homes and welfare clinics. It would also be helpful if it were published in all the local newspapers, and if you could get it from the telephone exchanges...

It would solve many problems within the N.H.S. if pharmacists would stop competing for National Health business and join together in urban areas to run a central pharmacy open till about 8.30 p.m. If necessary more than one centre may be needed, bearing in mind travelling times and distances. There should also be a properly organised twenty-four-hour 'on-call' service...

Quoting paragraph 56 of the report on the General Practice of Pharmacy (to the effect that it would be professional misconduct for a pharmacy to stay open late if "the premises bore illuminated signs, the window was lit, the blinds were up, the door was open or there was any evidence of activity other than that strictly necessary for the pharmaceutical service) the report comments that it is difficult to see how anyone can tell whether a pharmacy can dispense his prescription if he cannot see that it is open.

The full RICA report is expected to be published later.

N.H.S. STATISTICS

In BARNSLEY during March 45,570 prescriptions (30,935 forms) were dispensed. Total cost was £22,244 and the average per prescription 117.15d.

In BERKSHIRE during March 145,415 prescriptions (100,759 forms) were dispensed at a total cost of £85,198. Average cost per prescription 140.61d.

COMPANY NEWS

Previous year's figures in parentheses

HICKSON & WELCH (HOLDINGS) LTD.—A second interim dividend of 2½ per cent. is declared.

BEECHAM GROUP, LTD.—Messrs. M. E. Bale and F. P. Doyle, M.Sc., F.R.I.C., have been appointed directors.

COLEMAN & CO., LTD.—A final dividend of 10 per cent. is recommended making a total of 15 per cent. for the year ended March 31 (22½ per cent., equivalent to 15 per cent. on the present larger capital.) Consolidated net profit of the group is £144,375 (£127,321), less tax, £57,370 (£69,509).

BUSH BOAKE ALLEN, LTD.—The company have added to their North American flavour interests through the acquisition of Seeley & Co., Inc., which will be fully integrated with Bush Boake Allen, Inc., Emerson, New Jersey. Messrs. Seeley have a factory in New York which has developed over recent years a range of fruit and other flavours. Bush Boake Allen, Inc., which already have a 50 per cent. interest in Saromex, Inc., have purchased the balance from Chas. L. Huisking & Co., Inc.

ASHE CHEMICAL, LTD.—A final dividend of 11 per cent. is recommended which, with the two interim dividends already paid, makes a total of 33 per cent. for 1965. (The total dividend of 33 per cent. for 1965 is the equivalent of 35.8 per cent. on the issued capital as at December 31, 1965, compared with a total dividend of 30 per cent. for 1964.) Group net profit for 1965, before tax, was £232,193 (against £179,495). Taxation charged is £87,091 (£89,933) leaving a net profit of £145,102 (£87,227).

ASPRO NICHOLAS, LTD.—Group trading profit increased from £2,093,153 to £2,336,662 in the year ended March 31. Taxation is charged at £1,162,692 (£1,004,482), leaving net profit attributable to parent company of £922,464 (£861,181). Sales increased by 7 per cent.—the improvement taking place both at home and overseas, with the division now U.K. and Ireland 45.4 per cent. and overseas, 54.6 per cent. Although the outlook in Britain and in a number of overseas areas has many uncertainties, "the current year is one in which we can again show increased profits," the directors state.

STANLEY WESTON GROUP, LTD.—The group has acquired for £150,000 the business of W. H. Wilkins, Ltd., a private company with thirty-seven pharmacies, three photographic and two drug stores in the greater Birmingham area. The acquisition brings the group's chemist division chain of branches up to seventy-two. The cost of the acquisition was satisfied by £20,000 in cash, the issue of £85,000 7 per cent. unsecured loan stock 1970-79, at par, and the issue of 144,000, 2s. ordinary shares at 6s. 3d. per share. In the year to June 30, 1965, W. H. Wilkins, Ltd., returned an unaudited pre-tax profit, excluding non-recurring items of £62,490. Pre-tax revenue from the Wilkins business accruing to the Stanley Weston Group

during the remainder of 1966 is expected to be not less than £30,000. Until the end of the year the branches will be trading as W. H. Wilkins and thereafter as Westons Chemist. The Perry Barr warehouse at 363 Birchfield Road, Birmingham, 20, will become a branch depôt of L. C. Whittaker & Co., Ltd.—a wholesaling subsidiary with head office in Sheffield which undertakes the purchasing activities of the branches.

N.P.U. HOLDINGS, LTD.—Net profit for the first financial period ended March 31 is £22,495 less tax of £10,076 leaving £12,419 available for distribution. A recommended dividend of 7½ per cent. takes £11,015. The chairman (Mr. J. O. Bond) in his statement accompanying the accounts reminds members that there is an option to subscribe for a further 200,000 £1 shares at par of S. Maw Son & Sons, Ltd. open until March 31, 1967 and at rising prices in subsequent years until 1970. Additional finance will be required when the option is exercised. Shareholders may be invited to subscribe as well as N.P.U. pharmacists not at present shareholders. The chairman draws attention to the fact that the cost and price structure "is extremely tight" the margin being below the usual acceptable to distributors. While large manufacturer-controlled wholesalers have their place in modern distributive trades Mr. Bond says it is important to preserve competitive and specialist systems so that the retailer's range of choice is preserved. "The active support of independent operators in this field therefore figures in our planning for the future," the chairman adds. The annual meeting is at 17 Bloomsbury Square, London, W.C.1 on June 28 at 7 p.m.

BUSINESS CHANGES

MR. B. J. WILSON, M.P.S., has opened a pharmacy at 109 Wiltshire Road, Chaddesden, Derby.

WYNLIT LABORATORIES, LTD., have removed to 4 Broad Street Place, London, E.C.2 (telephone: London Wall 3535) from 60 Welbeck Street, W.1.

RANKIN BROTHERS & SONS, have taken over the business of Edensor & Richardson, cork merchants, 10 Northumberland Alley, London, E.C.3. Edensor & Richardson will continue to operate under the same name but from 139 Bermondsey Street, London, S.E.1 (telephone: HOP 4288).

CONTINENTAL LABORATORIES, LTD., 85 Church Road, Hove, Sussex, are to be known as Cox-Continental, Ltd., from July 1. Commenting on the change, the managing director (Mr. R. D. Wishart) said, "In view of recent policy changes within the company and the increase and re-organisation of our sales force, we felt we needed a name which more closely associated ourselves with our parent company, Arthur H. Cox, Ltd., of Brighton."

Appointments

ARTHUR H. COX & CO., LTD., 93 Lewes Road, Brighton, 7, have

appointed Mr. J. G. Seaden representative for the London and East Anglia area.

NICHOLAS LABORATORIES, LTD., Bath Road, Slough, Bucks, have appointed Mr. D. Morgan, M.Sc., M.P.S., their sales manager, Mr. R. Edwards, sales promotion manager, Mr. R. F. Bourne, professional services controller and Mr. P. Boyle, advertising manager.

MR. P. T. PETLEY (managing director, P. T. Petley & Co., Ltd.) has announced the appointment of Mr. D. Clark as chief perfumer for Fritzsche Brothers in London. The appointment coincides with the opening of a new Fritzsche-Petley laboratory at 9 St. Cross Street, London, E.C.1. (Messrs. Petley are U.K. agents for Fritzsche Brothers Inc., products.)

STEVENSON & HOWELL, LTD., have appointed Mr. A. Rochford manager of their Dublin branch; he will also represent the company and that of Standard Essence Co. (Ireland), Ltd. (of which he is appointed a director), in Eire. Mr. Rochford has been assistant manager at Dublin for eight years. Mr. D. Gleeson recently joined the company to assist Mr. Rochford in Dublin.

PERSONALITIES

MR. C. C. PRYOR who is purchasing manager of Proprietary Perfumes, Ltd., has been elected chairman of the Essential Oil Importers' Section of the London Chamber of Commerce.

MR. J. V. TANNER, who has been proprietor of a pharmacy in Seaford, Sussex, for the past fourteen years, has been elected chairman of the Seaford urban district council. Before going to Seaford, Mr. Tanner was with Boots, Ltd., in Manchester.

DR. R. P. PENNA, who for the past five years has been assistant clinical professor of pharmacy at the School of Pharmacy, University of California, has been appointed director of the American Pharmaceutical Association division of pharmaceutical services as from July 1.

MARRIAGES

FORMAN—FIELD.—At Holbeach, Lincs, recently, John Lionel Forman, M.P.S., Pipwell Gate, Saracen's Head, Spalding, Lincs, to Wendy Elizabeth Field, Boston Road, Holbeach.

DEATHS

ALLEN.—Suddenly, on May 29, Mr. Roger K. Allen, chairman of Stafford Allen & Sons, Ltd., Wharf Road, London, N.1. Born in 1913, he was a great-grandson of Stafford Allen (who founded the firm in 1833) and joined the company at the age of 19. Essential oils were one of his great interests and he was chairman of the importers' section of the London Chamber of Commerce from 1962 to 64, in addition to being active in the Association of the British Pharmaceutical Industry. Following the liberation of Sicily in 1944, he represented the Ministry of Food in reorganising the citrus industry and later returned to the company as a director. On the retirement of his father, Kenneth C. Allen, in 1960 he

became chairman of the company and retained that position until his death. He was also joint managing director of the flavour division of Bush Boake Allen, Ltd. He is survived by his widow, four sons and a daughter.

GIBBS.—Suddenly on May 29, as the result of a heart attack, Mr. Frederick William Gibbs, D.Sc., F.R.I.C., deputy secretary (scientific) of the Royal Institute of Chemistry and editor of *Chemistry in Britain*.

GOODALL.—On May 28, Mr. Douglas Bates Goodall, M.P.S., 2 Highlands Road, Rhuddlan, Rhyl, North Wales, Mr. Goodall qualified in 1924.

LAWRENCE.—Recently, Mr. Robert Lawrence, M.P.S., 95 Cowley Lane, Chapelton, Sheffield, Mr. Lawrence was in his eightieth year, he

qualified in 1908. He is survived by his widow and daughter (Dr. R. W. Lawrence, M.B., Ch.B.).

MAVOR.—On May 28, Mr. James Mavor, formerly at 45 Hightown, Crewe, aged 94, Mr. Mavor qualified as a chemist and druggist in 1893. After many years in business he retired about five years ago and sold the business to P. Williams (Chemists), Ltd., Victoria Street, Crewe.

NORRIS.—On May 19, Mr. Alfred Victor Norris, F.P.S., 92 Scalpcliffe Road, Burton-on-Trent, Staffs. Mr. Norris qualified in 1913.

PACKWOOD.—On May 11, Mr. Joseph Packwood, M.P.S., 76 Wyke Road, Weymouth, Dorset, Mr. Packwood qualified in 1921.

TORRANCE.—Recently, Mr. Don-

ald Buchanan Torrance, M.P.S., Bramshall Road, Uttoxeter, Staffs, aged sixty-six, Mr. Torrance qualified in 1919 and was for many years in business in the Normanton district of Derby.

WIGNELL.—On May 18, Mr. Sydney Ernest Wignell, M.P.S., 270 Boldmere Road, Sutton Coldfield, Warwicks, Mr. Wignell qualified in 1930.

WILLIAMS.—On May 19, Mr. Reginald Herbert Williams, M.P.S., Great House Pharmacy, Cowbridge, Glam, Mr. Williams qualified in 1920.

WYCHERLEY.—Recently, Mr. George Wycherley, Cagewell Drive, Herbury, nr. Wakefield, Yorks, aged sixty-seven, Mr. Wycherley qualified as a chemist and druggist in 1921. He was in business at Leeds but retired four years ago because of ill health.

BRANCH EVENTS

BIRMINGHAM

Annual Banquet

THE importance of proposed new medicines legislation to the pharmaceutical profession was emphasised by MR. J. C. BLOOMFIELD (president, Pharmaceutical Society) when he addressed the annual banquet and ball of the Birmingham Pharmaceutical Association recently. He said there should be complete control over the manufacture, distribution and retailing of drugs and medicines by qualified persons, and also complete control and registration of new premises. Those were matters that would be dealt with in the forthcoming Bill, he believed. The Society would fight "tooth and nail" through Parliament until they became a reality. Mr. Bloomfield was responding to "The Pharmaceutical Society of Great Britain" proposed by SIR ARTHUR THOMSON, former Dean of the Birmingham Medical Faculty, and of the General Medical Council. Sir Arthur said that the Society's origins dated back to seventeen years before the establishment of the General Medical Council and it followed one of the most ancient of arts, Proposing "The City of Birmingham," PROFESSOR N., J. HARPER (head of the department of pharmacy, University of Aston) described the granting of the new University's charter as "a milestone" in Birmingham's distinguished history of fostering the sciences and the arts. In the field of pharmacy, the University (formerly the Birmingham College of Advanced Technology) would work purposefully in the pursuit of knowledge. Tributes were paid by Mr. Bloomfield, Sir Arthur and Mr. J. H. Morris (chairman, Birmingham Pharmaceutical Association), to Mr. Charles McArdle on his being awarded the Pharmaceutical Society's Charter Silver Medal for 1966. The chairman also thanked Miss E. A. Skew for arrangements that had contributed "to a successful function."

PLYMOUTH

Fire-fighting History

THE history of the fire service was traced by the chief fire officer of Plymouth (Mr. Wright) at a recent meeting of the Plymouth Branch of the Pharmaceutical Society. From the earli-

est recorded voluntary effort until 1941, when forces were manned by the police, each unit was independent and there was no standardisation of any kind. With the coming of the war the futility of that had been immediately emphasised and the Home Office had rushed through a crash programme to standardise equipment. The National Fire Service had then been formed and today the number of brigades was 143. Large firms were allowed to have their own brigades and a fire brigade was not authorised to encroach on Crown Land unless invited. Under the Fire Service Act of 1947, the Fire Service had no direct duty to put out a fire, but "to take all precautions to mitigate damage," which naturally included extinguishing the fire. First priority was to save life and the Service was obliged to give information on equipment and advice and training. The greatest danger to life in fire was smoke which, like hot gases, could kill within three minutes. Mr. Wright recommended as a fire precaution that all doors should be closed at night and all electrical appliances not only switched off but disconnected as well. When a fire alarm was raised everyone should go downstairs to the front door and that door should be closed quickly behind to prevent it being a source of air. For any persons trapped upstairs the safest place, after making sure that the door was shut and all crevices wedged with cloth if possible, was near the window, so that a rescue could be made as quickly as possible. In reply to a question on equipment the officer recommended a 7-lb. dry powder container.

SLOUGH

Radiochemical Centre

THE work of the Radiochemical Centre, Amersham, in providing radioactive isotopes for medical use was described to a recent meeting of Slough Branch of the Pharmaceutical Society held at Nicholas Products, Ltd., Slough. Branch member MR. G. BRYAN described how work on radioactive materials had begun at Amersham in 1940 with the refining of radium concentrates for the manufacture of luminous paints. The laboratories had been taken into public ownership in 1946 and incorporated as an establishment

of the United Kingdom Atomic Energy Authority when that body was created in 1954. The Centre now had sole responsibility for radioisotope production and distribution within the U.K.A.E.A. with sales of over £2 millions a year (well over half from exports). The majority of the 180 radioisotopes supplied were "artificial," generally reactor-produced or obtained by cyclotron bombardment. Demand for radioisotopes and radioisotope-labelled compounds in forms suitable for medical use was growing rapidly and the Centre now supplied about 100 radiopharmaceuticals including the nine products described in the British Pharmacopoeia. In addition to the normal pharmaceutical requirements of producing sterile, pyrogen-free injection solutions conforming in other respects to label claims there were a number of problems peculiar to the production of radiopharmaceuticals such as remote handling to limit radiation exposure to personnel. Many isotopes had relatively short half-lives so that they could not be held in stock and rapid distribution was important. Undesirable impurities might arise from decay of the radioisotope or self-irradiation of the labelled compound. A frequent additional factor was the extremely small scale of manufacture, where a production batch might well be of sub-milligram amounts. After a brief mention of some recent developments in the therapeutic uses of radiochemicals, Mr. Bryan went on to discuss some of their uses in diagnosis; *in vitro* as reagents for the assay of biochemicals and *in vivo* as physical tracers, dilution indicators and scanning agents. An unusually versatile scanning agent was technetium-99 which, because of its short half-life and the character of its emitted radiation, was particularly suitable for medical purposes. It was supplied to the user as molybdenum-99 on an alumina column from which technetium-99m, the daughter product, could be eluted using isotonic saline. With reagents of that type, calling for the observance of aseptic precautions by the user and possibly for additional chemical manipulation, it was likely that the pharmacist would have a growing rôle in establishing supplies of future radioactive diagnostic materials within the hospital.

NEW PRODUCTS AND PACKS

OVER-THE-COUNTER MEDICINALS

Compound Charcoal Tablets.—Martindale Samore, Ltd., 177 Preston Road, Brighton, 6, Sussex, are importing from Austria and distributing in Great Britain, Eucarbon compound charcoal tablets, which contain also senna, rhubarb, fennel and sulphur and are suggested for intestinal fermentation, flatulence, haemorrhoidal constipation, etc. The bottle holds 100 tablets.

FOODS

Breakfast Cereal for Babies.—H. J. Heinz Co., Ltd., 103 Mount Street, London, W.1, have introduced a new variety in their breakfast cereals for babies: junior fruit and honey breakfast in the 4½-oz. range. Made from apples, apricots and honey, the product is in a form claimed easy for the baby to digest.

COSMETICS AND TOILETRIES

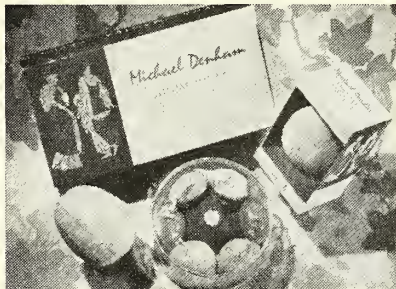
Now in All Perfumes.—Guerlain, Ltd., 42 Conduit Street, London, W.1, have made their *Crème Hydratante pour le corps* (moisturising body cream) available in all the Guerlain perfumes (*Mitsouko*, *Chant d'Aromes*, *Ode*, *Jicky*, *L'Heure Bleue*, *Liu*, *Vol de Nuit*, No. 90, *Sous le Vent*).

Deodorant Spray "for the Family."—Max Factor Hollywood and London (Sales), Ltd., 16 Old Bond Street, London, W.1, have produced a new deodorant spray—"with real family appeal." From its attractive aerosol pack family deodorant spray is quick and easy to use giving day-long freshness.



Left: New family deodorant spray by Max Factor Hollywood & London (Sales), Ltd., 16 Old Bond Street, London, W.1. Right: Voodoo! shampoos (four varieties) by Southalls (Sales), Ltd., Bessemer Road, Welwyn Garden City, Herts.

Shampoos That Bewitch.—Southalls (Sales), Ltd., Bessemer Road, Welwyn Garden City, Herts, have launched a new Voodoo range of shampoos, "specially formulated to add highlights to the hair and leave it soft and manageable." Voodoo comes in four varieties ("Satan's Kiss," "Devil's Fire," "Dark Secret" and "Witches Cauldron"), each with a "wicked" built-in perfume that "lingers in the hair to excite and bewitch!" The shampoos are in sachets.



GUEST SOAPS: Italian Marble toilet soap of Michael Denham, Ltd., 14 Robert Adam Street, London, W.1, in new guest size (see C. & D., May 28, p. 523). Illustration previously published was of the large-size pack.

Hair-colouring Kit for Dolls.—In conjunction with Pedigree Dolls, makers of the "Sindy" doll, the Steiner Group, Harvest Mews, Harvest Road, London, N.7, have produced a Sindy hair-colouring kit that enables the hair of the dolls to be sprayed gold or silver or shampooed, or the face cleansed, with products identical with those made by Messrs. Steiner for the adult market except for being in miniature plastic bottles. The sales director of the Group hopes that "Steiner brand loyalty" will be developed thereby in over 1 million owners of Sindy dolls, and the company's name brought before more than a similar number of mothers who are already potential Steiner customers.

Aerosol Shaving Cream.—Gillette Safety Razor Co., Great West Road, Isleworth, Middlesex, are introducing Foamy aerosol shaving cream as "a superb shaving cream with many product advantages." The aerosol pack gives instant foam; ready to use. The use of shaving mug, brush and soap is eliminated. The container is convenient—especially during travel or holiday. Excellent lubrication, the makers claim, is provided to the skin for shaving. An ingredient is K34, Gillette's branded hexachlorophene skin antiseptic. The fragrance is refreshing and cooling.

"Ultra-with-it" Cosmetics.—Cullingford of Chelsea, Lunt Avenue, Bootle, 10, Lancs, have produced a "Young Chelsea" range of cosmetics, described as being "ultra-with-it": The range comprises Cologne mist ("a delightful fragrance giving lasting personal freshness"), after-bath spray containing hexachlorophene, and vitamins A and D, hair spray containing silicones and plasticisers, hand cream, spray deodorant containing hexachlorophene and zinc phenol sulphonate as mild antiperspirant, "bath charms" capsules, and beauty soap.

BABY-CARE PRODUCTS

A Better Method of Bathing Baby.—A new, safe, time-saving technique for bathing babies using a "chemists-only" bath additive Infa-care, is being promoted by the manufacturers, Hadleigh-Crowther, Ltd., Caversham Laboratories, Caversham, Berks. The product was formulated to overcome the disadvantages of the traditional soaping method, namely destruction of

the skin's "acid-mantle" protection against infection; stinging of the eyes; and heat loss during the preliminary soaping, normally carried out outside the bath. Besides being a cleansing agent, Infa-care contains hexachlorophene (recognised one of the safest yet most potent antiseptics for destroying bacteria on the skin) and allantoin, which is included for its keratolytic properties. In laboratory tests Infa-care was shown to cause only about half the amount of skin irritation caused by the use of a baby soap, and on tests on the rabbit eye almost no irritation was observed, even at 160 times the normal concentration. In the new bathing technique the baby is first "topped and tailed" (using bath-water containing the additive), then is put into the bath and washed. Pack is a plastic squeeze bottle with flip cap designed for one-hand use and containing 2-3 weeks' supply. Midwives throughout the country have been sent a sample of the product and a five-frame film strip and viewer illustrating the technique.

SUNDRIES

Medical Cleansing Towelette.—Available from G. H. Linton & Co., Ltd., Hemel Hempstead, Herts, is a medical cleansing towelette in carton of fifty. Pack and towelette are claimed odourless—"an essential requirement where food handling is concerned." Incorporating cetrimide and chlorhexidine, each impregnated towelette is sealed in a PVDC plastic pack that keeps it sterile, moist and serviceable for years in any climate.

AIDS TO EFFICIENCY

Book-keeping for the Small Business.—Recognising the need for a service for smaller businesses that cannot economically employ a full time book-keeper or accountant, Mobile Business Services (London), Ltd., 45 Caledonian

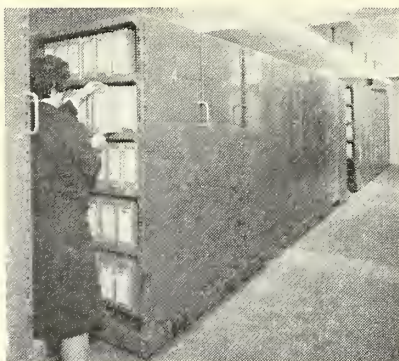


Road, London, N.1, undertake to provide a competent book-keeper at the retailer's place of business for a short period at regular intervals, a "mobile office" that can make calls at weekly or longer intervals. The client does not have to prepare any records, but simply keeps till rolls, receipts and

other documents in special files until the next scheduled call.

Guaranteed for a Million Copies.—A compact, desk-top electrostatic machine, the Apeco Super-stat, is claimed to do every copying job performed by any other copier—even console units—is offered by Apeco, Ltd., Columbus House, North End Road, Wembley, Middlesex. The Super-stat incorporate several new design features that ensure trouble-free performance and uniformly high-quality dry copies. Every machine is guaranteed to the original purchaser to make a minimum of 1 million copies. Perfect copies are claimed of pages from bound volumes. Price of the machine is £425.

Utilisation of Space.—Roche Products, Ltd., Welwyn Garden City, have solved the problem of storing archives by installing Dexion mobile storage racking. This system avoids wasting



unnecessary space on gangways. The racks are mounted on steel rails so that they can be moved easily to provide one gangway exactly when and where it is needed. Instead of a gangway for each rack there is just one for all the racks.

TRADE NOTES

Change of Supplier.—Parmacetyl tablets are no longer available from Nicholas Laboratories, Ltd., Slough. The product is now supplied by Elliott Pharmaceutical Laboratories, 8 Radnor House, 93 Regent Street, London, W.1.

Steriliser for Eye Solutions.—Jacob, White & Co., Ltd., 326 Upper Street, London, N.1, offer a steriliser in two standard sizes (four bottles and sixteen bottles) for eye solutions and dropper bottles.

Pack Corrected.—Injection solution of Surmontil, speciality of May & Baker, Ltd., Dagenham, Essex, is supplied in 2-mil ampoules. The Guide to New Medicaments monograph (C. & D., May 14, p. 482) should be amended accordingly.

Hairbrush "Deal."—Jackel & Co., Ltd., Blyth, Northumberland, offer a "deal 66" of Royal Sweden hairbrushes (a range of twelve popular pieces, each "window" boxed for quick-selling display) at a specially attractive price.

A Market Survey of Scotland.—Under the title "Scotland—The Vital Market," a survey of Scotland's economy was recently produced for Scottish Television, Ltd., Glasgow, as a guide to manufacturers, advertising agents, distributors, wholesalers, and others.

Change of Product Name.—Dunster Laboratories, Ltd., Yorkshire Street, Rochdale, Lancs, announce that the name Coprol is being amended to Coprola. No change is involved in constituents. The change of name is being made progressively as stocks with the present label are exhausted.

Take-over of a Product.—Smith & Nephew, Ltd., Bessemer Road, Welwyn Garden City, Herts, have taken over from Laurice of London, Ltd., the manufacturing and marketing of the So-Ba tablets (against "hang-over"). So-Ba is being distributed solely through chemists. It is packed in tube of four tablets in outer of twelve.

Last Date for Credit.—Duncan, Flockhart & Evans, Ltd., Birkbeck Street, London, E.2, remind pharma-

cists that they no longer manufacture and market ethyl chloride. They discontinued sales of the product over a year ago and ask that empty containers should not be returned to them after July 1: on any empty containers returned before that date they will continue to pass credit.

Tablet Markings.—RIKER LABORATORIES, Loughborough, Leics, announce that Norflex tablets are now white instead of purple and coded for easier identification. The face bears the letters N and X and the reverse the name Riker. Formulation is unchanged. The company's antihypertensive tablet Rauwiloid now bears on the face the letters R and D and the reverse, as before, the name Riker.—JOHN WYETH & BROTHER, LTD., Taplow, Maidenhead, Berks, state that Ethobral tablets now bear the name Wyeth on the formerly plain face.

Changes of Pack.—Ayerst Laboratories, manufacturers of Phospholine (ecothiopate) iodide, which is distributed in Great Britain by Martindale Samore, Ltd., 177 Preston Road, Brighton, 6, Sussex, are changing the product's presentation as and when new batches of the individual dosages are manufactured. The powder will be in

larger-size vial with roll-on aluminium seal and the diluent will also be presented in the vial. The colour of the slightly larger cartons will be green for all three strengths. Pharmacists dispensing the product are asked to make particular note of the colour change. Individual strengths are being boldly indicated, both on the carton and on the bottle label. Present stock of Phospholine iodide is being distributed until it is exhausted and no packs at present in circulation should be returned for credit or exchange. A reminder is given that ecothiopate iodide eye drops are included in the 1966 edition of the British National Formulary.

Bonus Offers

SOUTHALLS (SALES), LTD., Bessemer Road, Welwyn Garden City, Herts. Voodoo shampoos. Twelve invoiced as seven (approximately). Introductory offer.

SMITH & NEPHEW, LTD., Bessemer Road, Welwyn Garden City, Herts. So-Ba tablets. Twelve invoiced as eleven.

Premium Offers

KIMBERLY-CLARK, LTD., Maidstone, Kent. Kotex feminine towels. Polythene food containers, beauty case and beach towels at considerable reductions to purchasers availing themselves of "on-pack" offer.

EY-LURE, LTD., 60 Bridge Road East, Welwyn Garden City, Herts: Waterproof eyelashes at 3s., Mend-a-nail repair kit at 2s. off normal prices. Until August 31.

Services

Towelling for Washrooms.—Advance Linen Services, Ltd., Stratton House, Stratton Street, London, W.1, point out that they make no charge for their Towelmaster cabinet or its installation. The charge for a 45-yd. roll of towelling is 6s., and each roll provides over 200 clean spaces. One roll is ample for seven men for a week and "there's always one in reserve."

Information for Manufacturers

An Inquiry-answering Service.—Redecon Information Services, 3 Dyers Buildings, Holborn, London, E.C.1, undertake to procure a wide range of technical, scientific, or commercial information in response to specific inquiries.



COLOUR CODED.—The range of Betnovate products distinguished by a coloured band on the container. They are:—Betnovate cream (mauve), Betnovate-N cream (green), Betnovate ointment (white), Betnovate-N ointment (beige), Betnovate lotion (mauve), Betnovate-N lotion (green), Betnovate-C (blue) and Betnovate-C ointment (yellow). Makers are Glaxo Laboratories, Ltd., Greenford.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

Manchester Pharmacy "Unforgettables"

SIR,—As one who studied his pharmacy at Manchester University when Professor K. Bullock was a demonstrator there, I was very interested to read Colin Melville's article. What a pity his opening paragraph failed to mention those two unforgettable characters "Jimmie" Greir and Ivy Roberts.

N. BUCKLEY,
London, S.W.1

Votes Acknowledged

SIR,—The results of the recent Council election were forwarded to me while on a lecture tour in the U.S.A. involving scientific aspects of pharmacy, and the support for me from all sections of pharmacy in the U.K., shown by the election results, acted as a great stimulant. Now, upon my return, I take this opportunity of thanking those members who voted for me, and I reiterate my pledge to serve all sections of pharmacy to the best of my ability.

ARNOLD H. BECKETT,
London, S.W.3

Nice to be Remembered

SIR,—I just could not help noticing in your May 21 issue of the *C. & D.* (p. 507) a small reproduction of the cartoon Mr. Hutson did at the Harrogate Conference in 1951, I would like to thank Professor Berry and, of course, Mr. Hutson, for their kind reference to this event after so many years, and it gives me a good deal of personal pleasure to know that someone still remembers.

G. L. BEET, F.P.S.,
(Chairman, Local Committee,
British Pharmaceutical Conference,
Harrogate, 1951)

A Change of Price

SIR,—It is surprising to find that, when the selective employment tax will greatly benefit manufacturers and increase the burden of all retail outlets, Messrs. Fisons—who will of course benefit from the tax—have raised the price of Sanatogen to the public by only a nominal amount but to the retailer by a greater amount.

Old price	Additional Cost	
	Public	Retailer
7 11	0 1	0 2½
14 10	0 2	0 5
27 0	0 6	0 8
49 3	0 6	1 7

This is a matter on which I hope my colleagues will raise a considerable protest.

E. JONES,
Persnore, Worcs

Separate Application Necessary

SIR,—In the article "Education in Pharmaceutical Technology" by J. E. Carless in your issue of May 28, reference is made to the courses for degrees in pharmacy offered by the universities, including Heriot-Watt University, Edinburgh. It is stated that "applications

for places in the universities must be made through the Universities Central Council on Admissions." It should be noted that Heriot-Watt University is not a member of U.C.C.A., and all applications for places at Heriot-Watt should be made direct to the secretary of the University, from whom application forms and further particulars of courses may be obtained.

DUNCAN I. CAMERON,
Heriot-Watt University,
Edinburgh, 1

Gelatin Capsule Prices

SIR,—In the Trade Notes section of the June 4 edition of the *CHEMIST AND DRUGGIST*, you publish a notice that Eli Lilly & Co., Ltd., Basingstoke, Hants, have increased their empty gelatin capsule prices with effect from June 21. May we ask you to point out in your next edition that this price increase refers only to the boxes of 100, 1,000 and 5,000 capsules packed for the retail pharmacist. The prices of bulk empty gelatin capsules as manufactured by Messrs. Eli Lilly and marketed through this (associate) company, Elanco Products, Ltd., Broadway House, The Broadway, Wimbeldon, London, S.W.19, remain unaltered.

ELANCO PRODUCTS, LTD.,
Broadway House,
The Broadway,
London, S.W.19

A Proposition

SIR,—With reference to the letter in your issue of May 21, signed Aref, it would seem that your correspondent may have been unfortunate, inasmuch as it is our experience that the average retail pharmacy, where the all-in purchase price is in the region of £13,000 to £15,000, shows an appreciably higher net profit to the owner-manager than the figure named (£3,000-3,500). We do not know whether Aref has been in touch with us; if not and he would care to write setting out brief details of his requirements (location, type of business, etc.) we will do our best to introduce him to a proposition that would be financially economic from the point of view of return on capital after making provision for proprietor's or manager's salary for services rendered.

ERNEST J. GEORGE & CO.,
London, W.C.1

Breaking Even on 17,000

SIR,—I have just received details of the N.F.66 in which we are informed that plastic spoons will be given away with all prescriptions involving this dosage. The spoons are to be purchased from wholesalers at 12s. 6d. per 250 and we are to be reimbursed at one penny for every 100 prescriptions. Thus, at a profit of 14 per cent. we would appear to have to dispense approximately 17,000 prescriptions to cover ourselves, always assuming that we got no more than 1.5 per cent. of prescriptions at this dosage. From this

it would appear that contractors dispensing less than 6,000 a month are subsidising this little venture. As with the revised arrangements for payment whereby we get 80 per cent. two weeks earlier and 20 per cent. two weeks later, and at the same time lose our interim payment, we seem to be getting the worst of the bargain. Why couldn't we have three months' supply of spoons (estimated on our previous figures) supplied free by the Ministry—we would hardly make any profit on that even if we tried. Why couldn't our 80 per cent. advance be made thirty days after sending in the prescriptions?

IVOR M. THOMAS,
London, W.1

Chemists' Advertising

SIR,—On recently reading your leader (*C. & D.*, May 28, p. 525) on this year's Branch Representatives' meeting, it was heartening to find that an impartial outsider, if you will forgive the expression, was so enlightened—compared with the vast majority of the delegates—on the Council's amendment to the motion on advertising. The Society's Council have often been accused by the membership of being irrational and irresponsible, but on this occasion I cannot help feeling that it was the membership that acted in this way by voting for an amendment to an amendment to the motion which completely reversed its prime original intention. I must congratulate Mr. Talvan Rees on the way he emotionally turned the meeting to his, or should I say the N.P.U.'s point of view on this matter. Unfortunately I do not accept this point of view; I agree with you, sir, that their line of reasoning is faulty, and that all they have succeeded in doing is to put back the clock. I only hope that, in the next eleven months, the membership, too, may become enlightened and rectify this grave error at the next A.G.M. and prevent the degrading of our profession by allowing advertising linked with the restricted titles, which I still maintain is for the express purpose of advertising one's professional service and not the goods mentioned in the advertisement. I, like Mr. J. R. Phillips (*C. & D.*, May 28, p. 536), wonder how any member can sit on the Executive of the N.P.U. and Council of the Pharmaceutical Society at the same time and still advocate resolute action. If they are not schizophrenics, then on which side of the fence do they dangle their legs?

G. W. HERDMAN,
Sunderland

Sterile Eye Drops

SIR,—If the opinions of your correspondent "Common Sense" (*C. & D.*, June 4, p. 558) were to be taken as representative of the attitude of retail pharmacists towards sterile eye drops they would make sorry reading. I prefer to believe that they are the isolated comments of one who has not considered carefully the implications of his words. Is not "Common Sense"

aware of the many criticisms levelled by ophthalmologists against eye drops prepared by outmoded extemporaneous methods? Such drops were often contaminated and, even in hospital use, were not an uncommon cause of iatrogenic disease. *Pseudomonas aeruginosa* is a likely contaminant of eye drops and lotions and, in the presence of even minor ocular trauma, provides an obvious hazard. Can "Common Sense" be unaware of the recent reports on infections caused by this organism and of its resistance to chemical antibacterial agents? He certainly cannot have seen the damage caused to an eye by this source of infection. At one time the arguments used by "Common Sense" were levelled at sterile injections, and in Listerian times against the need for newer surgical techniques. In the majority of cases, no doubt, the body defence mechanisms will cope admirably with chance contamination, but there is always the unexpected instance when they will not. Would "Common Sense" care to gamble his sight on that odd chance? However a patient chooses to treat his eye drops after they have left the pharmacist's care, there is no excuse for turning out from one's dispensary anything less perfect than the best and safest technically attainable. If I ever need ophthalmic medication I shall be content to rely on the judgment of the Joint Formulary Committee rather than on "Common Sense's" assessment of my needs. Unfortunately, since he conceals his identity, I shall not know which retail establishment to avoid!

DENNIS A. NORTON,
Bristol, 9

SIR,—I heartily endorse the comments of "Common Sense" (*C. & D.*, June 4, p. 558), who ridicules the new ruling that all eye drops dispensed on N.H.S. prescriptions shall be sterilised. I am asking my local doctors to prescribe, with each bottle of sterile eye drops, the following equipment: 1. A plastic bag to be placed over the head immediately after dropping in the sterile drops. This will prevent the millions of atmospheric germs, diesel fumes, vaporised nicotine, etc., from entering the eyes. 2. A cylinder of oxygen with delivery tube to the plastic bag. The cylinder to be worn on the back. A fine adjustment inlet and a simple outlet valve would complete the set. 3. Twenty-eight 1-lb. cotton wool (sterilised) in which to wrap the patient.

C. H. PATRICK,
Twyford,
Berks

N.P.U. and Members' Advertising

SIR,—*Xrayser* (*C. & D.*, June 4, p. 549), chides the National Pharmaceutical Union Executive Committee severely for expressing its opinion to members on one aspect of the advertising question that was before the Branch Representatives' meeting recently. I cannot let his comments go unanswered. He must know that it is the main purpose of the N.P.U. to safeguard and further the interests of its members throughout the country. Consequently it is the duty of the Executive Committee to bring to the

attention of members the implications of any proposed policy, whatever the source of that policy, where the proposals may adversely affect members' interests. In March we pointed out to members in the N.P.U. Supplement the inherent dangers of the Sunderland Branch motion. The Executive Committee subsequently considered the Council's amendment and decided that members should be informed of the Committee's views on paragraph (g) of that amendment. The Albert Hall resolution made it clear that the Council of the Society appreciated that retail pharmacies would have to continue to sell toiletries, cosmetics and photographic goods if they were to remain economically viable. These goods are of course sold in many retail outlets other than pharmacies and the Executive Committee considered that N.P.U. members should not be placed at a disadvantage, as compared with other outlets, in advertising. We must accept that retail pharmacy is in the field of retail distribution and is likely to remain in that field in the foreseeable future. Members do find it necessary to advertise in local newspapers, either privately or in co-operation with manufacturers, and it was apparent to the Executive Committee that paragraph (g) of the Council amendment, if accepted, was likely to make the position of those pharmacies more difficult. Having dealt with the general question, may I now comment on some of the points that *Xrayser* made. He said

that the meeting was a meeting of members of the Society; it was in fact a meeting of representatives of branches throughout the country. Individual members of the Society were free to instruct their representatives as to their reactions not only to the N.P.U. statement but to the published statements of others on the advertising proposals (for example, the leader in the *Pharmaceutical Journal*, April 23, p. 391, and subsequent correspondence). *Xrayser* himself wrote only a few weeks ago (*C. & D.*, May 21, p. 493) that the commercial side of retail pharmacy is an essential factor in the pharmaceutical economy and that advertising of goods is an accepted commercial practice. And he added that he could see little harm in the use of the description "Chemist." Does he accept any credit for his part in "interfering with the conduct of the meeting"? In any event, I would rather accept, on behalf of the Executive Committee, the criticism of interference, even if undeserved, than of indifference. The modified rules accepted at the Branch Representatives' meeting remain as proposals until they are submitted to the Society's annual meeting next year. No doubt they will be discussed fully during the intervening season of Branch meetings. And members generally will have no difficulty in deciding for themselves whether this matter is, as *Xrayser* said, solely "one of professional ethics."

J. WRIGHT, *Secretary*,
National Pharmaceutical Union

CONTROL OF CONCEPTION

Experts at a company-sponsored symposium

OVER 250 doctors, many of them attached to family-planning clinics, were guests of Syntex Pharmaceuticals, Ltd., at a symposium on conception control held at Maidenhead, Berks, town hall on June 4. The company's rôle in steroid research was outlined by PROFESSOR F. SONDHEIMER (a director) who said that the 19-nor progesterones present in almost all oral contraceptives had been discovered by Syntex workers. Nearly half the oral contraceptives now used in the world were made either by the company or by one of its licensees.

Oestrogens Alone?

SIR DUGALD BAIRD (formerly regius professor of obstetrics and gynaecology, Aberdeen University) believed that advice on contraception should be available free to all and part of the family doctor's work. DR. R. DORFMAN (director, Syntex Institute of Hormone Biology) showed how research on contraceptives had led from oestrogen-progesterone combinations to the sequential type, in which progesterone was added only late in the cycle. A future possibility was the use of oestrogen alone.

DR. ELEANOR MEARS (clinical adviser, Family Planning Association) said that in the United Kingdom the oestrogen-progesterone combinations had proved the most effective contraceptives. Failure rates (pregnancies per 100 women years) were seven for diaphragm and jelly, 1.5 and 2.5 for intra-uterine devices, and 0.74 and 0.4 for oral contraceptives. Where, with the last-named,

failure rates were nil, the progesterone present was norethisterone or its acetate. Side effects — usually those of the woman's own cycle or of pregnancy — could be reduced by varying the oestrogen-progesterone ratio. Less was known of the effects of sequential contraceptives. Though some women apparently felt better while taking them, the products were not quite so effective as the combinations.

Improving "Rhythm"

DR. E. TYLER (formerly president, Los Angeles Planned Parenthood Centre) speaking on low-dosage methods, said that norethindrone in dose of only 1 mgm. had been found as effective as higher-dose contraceptives and, though many patients complained of side-effects in the earlier cycles, they continued with the therapy. Compounds designed to give "planned ovulation" had also been investigated in an attempt to improve the "rhythm" method of contraception. DR. H. RUDEL (director, Syntex Institute of Clinical Medicine) discussed work on oestrogen-free contraceptives, especially chlormadinone acetate in low doses. A useful level of fertility control had been achieved, but there were problems still to overcome.

If good fertility and cyclical control could be obtained orally with a low-dose progesterone, then the way would be open for parenteral long-term fertility control. Chlormadinone had been found to be more suited to use during the post-partum period than other contraceptives that inhibited lactation.



CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

ESTABLISHED 1859

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Built-in Frustrations

MANY Members of Parliament who supported the Resale Prices Act may be unlikely to have realised that to present a case to the Restrictive Practices Court—and that for only one class of goods—might cost as much as £50,000 to £60,000. One effect of that high expense is that a manufacturer concerned in the production of a variety of articles, although convinced that fixed minimum retail prices are appropriate to his products and method of trading, may now be faced with an expenditure completely out of line with his normal trading returns if he claims exemption for them from the Resale Prices Act, since those articles might be classified within a number of groups of the adopted "Brussels Nomenclature."

Complex drafting of another piece of legislation has created another serious situation, causing the National Chamber of Trade to give local groups a warning which other trade organisations should also note. It concerns the possibility that the issue by local groups, branches or organisations of information or advice might in some way be regarded as being in restraint of trade. The Chamber points out that generally any document calling upon members not to engage in any particular type of trading or urging members not to cut prices or to deal in goods of any particular class or of any particular manufacture is, on the assumption that members have agreed to abide by a recommendation of their chamber of trade, an agreement in restraint of trade. As such it is registrable with the Registrar of Restrictive Trade Practices. To bodies such as local chambers of trade the Act applies only where a restriction is related to a particular class or classes of goods, and some doubt has been cast on its applicability to a restrictive recommendation made by a chamber in general terms. However, until the problem has been adjudicated and a deci-

sion has been given by the Restrictive Trade Practices Court, no local chamber could afford the financial risk involved in having to register and subsequently to justify a restrictive agreement, even in its widest sense. The registration of an agreement, filing the details and justifying it as being in the public interest would result in costs "that will certainly destroy any small chamber and could cause serious embarrassment even to the largest."

The National Chamber emphasises that it is immaterial that the recommendation might be obviously in the public interest. If it were registrable, and even if there might be no difficulty in satisfying the court it was in the public interest, the cost of obtaining such a decision would usually be to undermine the very economic existence of the local body.

Representations are being made to the Board of Trade on that situation, which the National Chamber understandably regards as intolerable. Meanwhile local groups are urged to take the utmost care in any circulation or statement of policy, so as to see that it contains nothing that might in any way be regarded as being in restraint of trade.

Overseas Trade in April

EXPORTS of medicinal and pharmaceutical products from the United Kingdom in April were valued at £5,114,000. In addition medicated and unmedicated surgical dressings exported were valued at £527,000 and aspirin, barbiturates and sulphonamides in bulk form at £217,000.

Australia, with purchases valued at £373,000, returned to her normal position as best customer. France, at £330,000, was second, followed closely by the Irish Republic, at £324,000. Sales to European Economic Community countries totalled £834,000, and to European Free Trade Association countries (excluding Austria), £673,000. In view of the falling sales to Nigeria—so far 7 per cent. down on the corresponding period of 1965—exporters and potential exporters might with advantage take note of information given on p. 590 by an industrial pharmacist working in West Africa.

The table shows a "breakdown" of exports and imports of division 54 of the Overseas Trade Accounts for April (H.M. Stationery Office, price 30s.) together with the bulk pharmaceutical chemicals mentioned above from another division.

Imports of pharmaceutical products in April totalled just over £1 million, bringing the total for four months of the year to £4.48 millions, against £2.75 millions in the corresponding period of 1965. The continuing high rate of imports of pharmaceutical products must give cause for concern to home manufacturers.

EXPORTS	£'000		£'000		£'000
Vitamins in bulk	168	Organo therapeutic glands, etc.		Sulphonamides in bulk	117
" products	58	" " in bulk	20	" tablets	40
Antibiotics		" " products	10	" other products	29
Penicillin in bulk	303	Sera and vaccines	92	Proprietary medicines	1,604
" injections	34	Aspirin in bulk	60	Unclassified medicines	772
" tablets, ointments, etc.	180	" products	92	IMPORTS	
other antibiotics in bulk	253	Antihistamines products	53	Vitamins	68
" " products	415	Antipaludics products	71	Antibiotics	225
Alkaloids in bulk	156	Barbiturates in bulk	40	Alkaloids	92
" products	27	" products	14	Glycosides, glands, sera, vaccines	49
Hormones in bulk	282	Medicated confectionery	82	Proprietary and veterinary medicines	420
" products	223	Ointments, liniments*	114	All other	208
Glycosides	20	Surgical dressings	527		

* Not elsewhere specified.



“OPEN SHOP”

AN UNSCRIPTED COMMENTARY ON THE
SPECIAL PROBLEMS OF THE PHARMACIST
IN GENERAL PRACTICE

By E. C. TENNER

SOME months ago I mentioned the advantages accruing from the use of the National Pharmaceutical Union clearing house for the settlement of accounts. Recent data given in the April Pink Supplement regarding the actual cost of writing cheques has again turned my mind to this subject. It appeared to me that not only must there be a considerable money saving, but that the equally important time saving must also be considerable. I therefore determined to investigate the whole matter carefully during the May settlement of our April accounts. The statements for these were collected, checked and divided into two piles, one of forty-five for the clearing house and the other of twenty-five for firms not on the clearing house schedule. The operation was then carefully timed and it was found that it required sixty-nine minutes to complete the clearing house part of the work. The other pile of twenty-five statements was then started upon, and it took sixty-four minutes to write the individual cheques and address and stamp the envelopes. A simple calculation showed that we had saved forty-six valuable minutes by using the clearing house, and since this was a reasonably average number of statements, during a year we shall be saving over nine hours of the time of a valuable assistant. The cash saving was also worked out and, taking the lowest bank charge of sevenpence per cheque mentioned in the Supplement, it appears that we shall save over £22 annually, whilst at the highest charge of 1s. 4d. per cheque the saving will be nearly £42. It really amazes me that there are still pharmacists so wealthy and with so much spare time that they can afford to ignore time and money savings of this magnitude.

Another Time and Money Saver

Today I received my copy of the *C. & D.* Quarterly Price List. I trust that our Editor will not mind me suggesting that this also is an admirable example of time and money saving for pharmacists, and must in itself be worth much more than the annual *C. & D.* subscription. Having for many years been keenly concerned in the surgical side of pharmacy, I found the articles on foot aids and the new exercise sandals in the *C. & D.* of more than usual interest. I will not dwell on the topic of the foot-comfort counter mentioned. Its usefulness will have become apparent to all pharmacists who have one. Regarding the sandals, however, I would emphasise the importance of encouraging a responsible member of the staff to wear them regularly in the shop, and of entrusting to her the introduction and sale of these items to customers.

A Task for Pharmaceutical Committees

“Whose Right?” No doubt you will recognise this as the heading of the *C. & D.* leader of May 14, in which the new regulations abolishing the mile limit were considered. Having studied these very carefully, it appears to me that much will depend on the interpretation and implementation of them, for they could be a double-edged weapon as regards pharmacy and in particular rural and semi-rural pharmacy. Correctly interpreted they could open a new era for those pharmacists affected, whereas an adverse interpretation could be fatal. I have no hesitation in suggesting that this is probably the most important matter that has ever been entrusted to the Pharmaceutical Committees, for it is they and they alone who will have to fight for the rights of their fellow pharmacists. No doubt the Cen-

tral N.H.S. Committee will give all possible assistance and guidance, but that will in no way alter the fact that everything will depend on the Local Pharmaceutical Committees, and in particular on those members appointed to serve on the dispensing committees. Might I suggest that this is a very urgent problem, and that Local Pharmaceutical Committees should take immediate steps to formulate their plans, and to ensure that their three most able fighters are appointed to the dispensing committee. For the result of this battle—and make no mistake, in many cases it will actually be a battle—will be of lasting significance to pharmacy. In this respect it would be no bad thing, indeed it would appear to be essential, for rural pharmacists to consider carefully how they can improve their services, particularly in the matter of deliveries, etc., so as to furnish their dispensing committee members with the maximum amount of ammunition. Merely to demand that they be entrusted with this work will get them precisely nowhere unless they are in a position to prove that they can carry it out to the satisfaction of everyone, especially the patients. In this connection I would think that meetings of the pharmaceutical members of the dispensing committees with those pharmacists who are involved, in order to study each case in detail, should be held with the least possible delay. Once more the situation is that time is not on the side of pharmacy.

Metric Spoonfuls

So now we are not only to dispense the prescription, but also in some cases to provide the spoon with which to take it! I would hazard a guess that many of the preparations to which this new scheme will apply are now—and despite the spoons will continue to be—taken by applying the bottle neck to the mouth. The habits of the great British public are not so easily changed. In any case would it not have been better for this matter to have been left in abeyance until all liquid B.N.F. and proprietary preparations could have been reformulated to conform with the new spoons? The present position will not only confuse pharmacists and their assistants, but will certainly lead to wrong dosages of many items, for surely those members of the public who do accept the spoons as a suitable measuring instrument are going to use them for all items, whether the label states a 5-mil dose or a teaspoonful. I would also have thought that it would have been better to have delayed any further metric adventures until a range of metric bottles was available. The present position, in which we are partially filling oversize imperial bottles to supply a preparation ordered by the doctor in a metric quantity, is most unsatisfactory and is bound to lead to suspicion on the part of the patients that they are being given short measure. In the meantime, surely it would not be unreasonable for the Ministry to give us a directive that, when metric quantities are ordered, we should supply the nearest imperial bottle and endorse the prescription accordingly.

APHRODISIAC? LETHAL? Police have warned parents in the Rye Lane, Peckham, area that children should not eat any strange sweets they find. These “sweets” were dropped by a patient who had a hole in his pocket. They are in three boxes which contain 100 purple heart tablets, 35 sodium amaryl tablets, and 20 phenargun pills. — *South London Press.*

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN NEW FELLOWS DESIGNATED

FORTY-THREE members of the Pharmaceutical Society were, on June 8, designated Fellows under the provisions of the by-laws, section III (4). The by-law enables Panel of Fellows appointed under it to grant the designation to a member of not less than twenty years' standing who "has made outstanding original contributions to the advancement of pharmaceutical knowledge or attained distinction in the science, practice, profession or history of pharmacy." The by-law was adopted in December 1965, and the list is the first to be issued under it. The names are:—

For distinguished services to pharmaceutical education in Africa

ERIC ALLMAN, Broken Hill, Zambia.

For distinction in the profession of pharmacy

JAMES CECIL BLOOMFIELD, Portsmouth.

ERIC ARTHUR BROCKLEHURST, Hull, Yorks.

MARY AGNES BURR, Nottingham.

HORACE BERNARD COULSON, Cambridge.

GRIFFITH THOMAS MEPHAM DAVID, Swansea.

THOMAS DRISCOLL, London, S.W.6.

HARRY ROWLAND EDGECOMBE, London, S.W.9.

GEORGE HAMMOND METCALFE GRAHAM, Newcastle-upon-Tyne.

THOMAS HESELTINE, Normanton, Yorks.

WILLIAM SPENCER HOWELLS, Whitland, Carmar.

ADAM ALEXANDER MELDRUM, Aberdeen.

JAMES FALLOWS MCNEAL, Clacton-on-Sea.

HAROLD GEOFFREY MOSS, Weybridge, Surrey.

ANDREW OFFICER, Glasgow.

THOMAS REID, Haslemere, Surrey.

ERNEST SKUES, London, S.W.17.

SIDNEY JOHN STEARN, Ipswich.

HARRY STEINMAN, Manchester.

CHARLES CRICHTON BIRNIE STEVENS, Congleton, Cheshire.

WILLIAM JOHN TRISTRAM, Liverpool, 1.

SAMUEL GEORGE TYDEMAN, Bristol.

FRANK CLAY WILSON, London, S.W.19.

For distinction in the science of pharmacy

ARTHUR JOHN MARSON BAILEY, Mitcham, Surrey.

WILLIAM JAMES CRUICKSHANK, London, N.W.10.

ROBERT GIBSON TODD, London, N.W.3.

For distinction in the practice of hospital pharmacy

GEOFFREY BRYAN, Pinner, Middlesex.

MARY CATER ISLIP, Harrow, Middlesex.

FRANCES BERTHA PRINCE, Nottingham.

JOHN BRADBURN LLOYD, Manchester.

For contributions to the advancement of pharmaceutical knowledge in microbiology

CHARLES EDWARD COULTHARD, Nottingham.

For distinction in the history of pharmacy

CHARLES GRAY DRUMMOND, Edinburgh.

For distinction in the general practice of pharmacy

JAMES OGSTON DAVIDSON, Tunbridge Wells.

ERIC THOMAS KENT, British Columbia (formerly of Sunderland).

WILLIAM ALEXANDER PARK, Aberdeen.

WALLACE TREHANE STOYLE, Beckenham, Kent.

HENRY TURNBULL THOMAS, Kelso.

For distinction in pharmaceutical journalism

WILLIAM KENNETH FITCH, London, S.W.4.

OWEN HARCOURT WALLER, London, N.14.

For distinction in the practice of pharmacy

AUGUSTINE MCGUCKIN, Newcastle-on-Tyne.

BENJAMIN JOHN THOMAS, London, W.1.

For distinction in industrial pharmacy

LAWRENCE MERVYN SPALTON, Kingston-upon-Thames.

CHARLES DOUGLAS WALSGROVE STAFFORD, Brentford, Middlesex.

Pharmaceutical Society of Northern Ireland MONTHLY MEETING OF COUNCIL

NEW draft regulations for registration as a pharmacist in Northern Ireland were submitted to the Council of the Pharmaceutical Society of Northern Ireland at its meeting in Londonderry on May 19. It was explained that the new regulations, if adopted, would revoke the existing regulations, except for students registered between January 1, 1956 and December 31, 1965.

At the same time certain changes would be made in the existing regulations so as to permit a student to serve his apprenticeship after completion of the part II qualifying examination. Under the new regulations it was proposed to increase the length of the course for the part II qualifying examination to three years. It was agreed that further discussion about the draft regulations should take place as soon as possible.

Mr. H. W. GAMBLE reported on discussions between representatives of the Council and of the Northern Ireland Branch of the British Medical Association about "N.P." prescriptions. It was agreed to examine the matter in greater detail at the next meeting.

Members to attend the Society's examinations were appointed.

A letter from Mr. Mullan (liaison secretary, Northern Ireland Pharmaceutical Students Association) was read, asking for financial assistance for a number of students attending a conference to be held in Vienna, September 18-29. It was agreed to make a grant of £25.

A letter from the secretary of the Northern Ireland General Health Services Board, referring to a report of an

investigation by the Services committee into a complaint by the Board against a contractor, was referred to the Ethical Committee.

The application of David Gobson, Lincoln House, King George Avenue, Ndola, Zambia, for the restoration of his name to the Register of Pharmaceutical Chemists for Northern Ireland, was granted.

Also at the meeting were Dr. R. G. R. Bacon and Messrs. N. A. J. Anderson; W. H. Boyd; N. C. Cooper; W. Donaldson; H. W. Gamble; J. Gordon; W. T. Hunter; G. E. McIlhagger; A. Templeton and R. M. Watson.

Apologies for absence were received from Professor O. L. Wade and Messrs. H. G. Campbell; R. J. Davidson; B. Flatley; J. Kerr; D. Moore; J. Paul; J. D. Pollock and W. C. Tate.

A PHARMACIST'S ANTHOLOGY THEIR BEST IN THE MEANTIME

From "Barchester Towers" by Anthony Trollope

THERE was as it appears very little hope of the old man's rallying, indeed no hope of anything like a final recovery. The only question was whether he must die at once speechless, unconscious, stricken to death by his first heavy fit . . . Sir Omicron Pie had been sent for from London. That great man had shown himself a wonderful adept at keeping life still moving within an old man's heart in the case of good old Bishop Grantly, and it might be reasonably expected that he would be equally successful with a dean. In the meantime Dr. Fillgrave and Mr. Rerechild were doing their best.

PHARMACEUTICALS IN WEST AFRICA

A pharmacist discusses the present problems and distribution in the territory. He believes that, despite recent political upsets, exporters should expand sales efforts now

By SAT SAPIENTI

THE countries of the West African Coast offer an attractive market to the British pharmaceutical manufacturer. Ghana and Nigeria combined imported £5.1 millions' worth of British pharmaceuticals during 1965. In addition there are three other small markets, Sierra Leone, Liberia and Gambia mentioned in order of importance. Nigeria imported from Britain pharmaceuticals to the value of £3,535,000 in 1965, a decline of £143,000 from the 1964 imports, whereas Ghana imported from Britain £263,000 more than in 1964 thus notching up a useful £1.6 million and that despite restrictive import licensing and an acute shortage of foreign exchange. Although this article deals mostly with Nigeria it is perhaps pertinent to mention that the above figures should cause serious heart searching by those British manufacturers who, at the end of 1964, withdrew most or all their expatriate staff from Ghana. In general terms the impression given is that British pharmaceutical manufacturers while desiring to sell in the West African market have not the same desire to know of or study the problems involved and that particularly applies to those concerns manufacturing in Britain but whose financial control resides in the United States.

Tough for Representatives

For the "ethical" pharmaceutical manufacturer who insists on sales promotion by medical representation only, Nigeria presents a particularly hard row to hoe for, it must be remembered that there are approximately 1,250 registered medical practitioners spread over about 374,000 sq. miles populated by over 59 million people. From those practitioners must be deducted the number engaged in administration, etc., plus those on leave or otherwise out of the country which reduces the total to less than 1,000 actually engaged in regular daily practice and of those probably less than eighty are engaged in wholetime private practice. There emerges a nation-wide picture of one doctor to 59,000 people and one private doctor about 700,000 people. Northern Nigeria presents a still more fascinating statistical picture with a population considered to be just over 29 millions and less than ten wholetime private medical practitioners. Also there are less than twenty retail pharmacists in an area of approximately 200,000 sq. miles. The shortest distance by road between private doctors may exceed 500 miles and between retail pharmacists 480 miles.

There are over forty well-known British-based "ethical" pharmaceutical manufacturers in the Nigerian market. The majority are American or Continental owned. Seven have established Nigerian-based companies, ostensibly to carry stocks locally to overcome the persistent stock shortages of their agents, but probably with three exceptions the operation is currently unprofitable and likely to remain so for some time. Any genuine dissatisfaction with stock levels carried by the local agent could doubtlessly have been resolved without the expense of local establishment. Further those firms who have established locally and decided to sell, in Nigeria, alongside their hitherto agent-distributor, have run into the problem (a foreseeable one) of maintaining reasonable Nigerian-wide wholesale outlets. In addition to the above concerns there are a number of "ethical" Continental companies actively interested in the market, plus British "non-ethical" companies, both having a range of products well established in the market. Two "ethical" Continental concerns have now established Nigerian subsidiary companies and are now importing from their parent organisation. To date only one organisation has opened a purely sales-promotion office to take care of

mailing and sampling, but as there is no registered pharmacist in charge, the company is unable to import or store samples containing a poison. The cost of that type of establishment need not be high, but its objectives can be achieved less expensively by other means than staffing an office in Nigeria. In any case the success or otherwise of such a venture depends largely upon the parent office delegating responsibility to the Coastal office and also some willingness on the part of the parent office to respond to given situations and opportunities that may be reported from the Coast. Current British management seem unwilling or unable to acknowledge, let alone accept, the existence of either of those two vital factors.

In Nigeria only four companies really specialise as import agents and wholesale distributors of "ethical" pharmaceuticals although a number of other concerns handle (and usually very well), the "non-ethical" trade. Since the number of manufacturers marketing in Nigeria is larger than the number of import agents-wholesale distributors (I.A.-W.D.), it follows that the latter usually have among their principals companies which are competitors. Thus the I.A.-W.D. are compelled to carry competitive products or demand their principals prune the list of products offered in Nigeria. Whichever line of action is finally adopted it is unsatisfactory to the manufacturer, it is disturbing to the manufacturer's staff employed on the Coast and worse it can prevent the I.A.-W.D. from actively backing a manufacturer's sales promotion drive. A more serious feature of the situation is that the manufacturer, with an eye to the future, seldom desires to make an effective binding agency agreement with the I.A.-W.D. and the latter, particularly in one case with a large number of sole agency agreements, cannot for obvious reasons clearly specify exactly what advantages can be extended to the manufacturer in return for the sole right of importation. Since the I.A.-W.D. are tied in with English concerns whose head offices are in England, the agency agreements are invariably made in England between the head office of the manufacturer and the English office of the agent. While that may appear reasonable, there is the attendant risk that the Coastal staff of the I.A.-W.D. may not sight the agreement and so remain ignorant of the essential and finer points that the manufacturer intended his agreement to specify to the agent's staff.

Capital Tied Up

In general, since an I.A.-W.D. does not receive consignment stock, his capital investment in stock, especially that attracting import duty, can be considerable. Because import duty rates have increased it has been necessary to tie up increasing amounts of capital merely to maintain stock at a stationary level of unit packs. Stock losses are not unknown and operating costs in Nigeria are extremely high. The I.A.-W.D. business in Nigeria is not very profitable, thus it is most unlikely that the Nigerian authorities would wish to disturb the current pattern of importing and wholesale distribution of "ethical" pharmaceuticals. There are numerous reasons for that view, but now is not a suitable occasion to enumerate or examine them. Suffice to suggest that unattractive profitability resulting from fair trading with small wholesale mark-up would dictate to the Nigerian the wisdom of applying his capital to a venture where, both the capital turnover, and profitability, are more enticing. Arising from the I.A.-W.D.'s financial problems is a reluctance to stock a multiplicity of packs of a given product and a sensible disinclination to place opening orders for new products. The latter is especially the case where the

new product is merely a copy of an already established product and which the maker hopes to sell at a higher dose price than the established product. Thus manufacturers with a "Because-we-make-it, it-will-sell-in-Nigeria" attitude can become involved in irritating correspondence and protracted negotiations in an effort to obtain an opening order, of negligible value, for a product with little sales potential while simultaneously neglecting their promotional efforts for products that enjoy reasonable sales but which have large untapped sales potentials.

The indications are that a concentrated sales effort in Nigeria is able to produce results in a comparatively short time. The manufacturer of a quality product indicated for a condition endemic in Nigeria, provided the product is suitably packed and priced within market feasibility, would be wise to promote its sales by every means available to him rather than attempt to introduce a product that is highly sophisticated, expensive, unsuitably packed for the market and indicated for a condition rarely seen. While that is obvious it is surprising the number of manufacturers who appear to repudiate sanity by dogmatically adopting a different policy. More simply stated there is a mass market for an anti-malarial but no mass market for an expensive medicated sun-tan cream.

Problems of Distance

Of late a disturbing change has been taking place among some of the I.A.-W.D. the most serious feature of which is a tendency to confine stock carried on a country-wide basis to those products termed "mass sellers." Considered in reference to short-term profitability that may make sense to the importing concern, but it makes no sense to the doctor or patient up country who may need a drug of last resort to be told that such drugs are expensive and slow movers and thus stocked only in Lagos. Distances in Nigeria are considerable, communications (other than by private car) are poor, indeed it may take a week to put through an Inter-Province phone call during normal business hours and telegrams may take as long with the extra risk of mutilation. Consequently it may be quicker to fly an up-country patient to England for treatment rather than attempt to get a drug to that patient from Lagos and it is a fact that some commercial organisations are today flying home their up-country staff in the event of illness. It thus follows that any manufacturer of expensive "ethicals," likely to be considered drugs of last resort, contemplating entry of the Nigerian market would be well advised to make searching inquiries in the country prior to entering into an agency agreement. Any agreement that is finally made should specify minimum stock levels for individual products at each up-country branch.

In broad terms the following are the major outlets for ethicals: Provincial Medical Stores; mission hospitals; quasi Government bodies; local authorities and native administrations; traders (usually non-pharmacists); retail pharmacists; private medical practitioners; company clinics and licensed medicine dealers. The Government hospitals experience an enormous demand for drugs which they obtain from the appropriate Provincial Medical Stores. Unless a manufacturer's product is stocked by those stores calls upon Government hospital doctors by medical representatives can be so much wasted time.

If one considers the size of population the drug vote, compared with European standards, is surely inadequate. The persons responsible for drug purchase have therefore to be price conscious—hence the tendency to purchase generics. With the impetus given to that tendency by the action of the British Ministry of Health (although that Ministry was never under the same financial pressures as the Nigerian authorities), the steady spread of generics (sometimes originating from little-known Continental packers) has been seen to extend not only in the Government sector but spill over to the private sector of the Nigerian pharmaceutical market. There now appears every

reason to assume that that tendency will extend over a wider range of products and in doing so gain in momentum since even those manufacturers who find their Nigerian registered patents being violated by generics appear hesitant to protect their interests. Some Government buyers have submitted several of the generics to independent analysis, reports have been considered satisfactory thus it is unrealistic to imagine that a given pack of a proprietary product should find a market at ten times the price for an identical pack of the equivalent non-proprietary.

Nigerians, and for that matter West Africans, purchasing in the private sector exhibit a strong brand loyalty irrespective of price. Indeed that is rather remarkable in a country where the annual *per capita* income is in the region of £25 and statutory basic wage can be as low as under £7 per month (figure set by the Morgan Commission in 1964 for the Northern Province then known as Northern Region). Hence the retail sector of a country with approximately 59 million people should be attractive. Certainly such a country offers rewarding opportunities to those manufacturers who are willing to both face the problems of distribution and the problems created by using promotional methods that are additional but alternative to medical representation. Dependant upon the product, one of the alternative promotional methods available is the "barker van." However repugnant the method may be to those at head office, the "barker van" is unquestionably outstanding for its ability to get products quickly moving in the markets and above all to cause a Nigerian operation to run at a profit.

The "barker van" operation is easily conducted provided it is under the supervision of an expatriate blessed with some patience and above all with a successful background of trading in under developed countries. Given such a man, then the home office must be willing to leave him to do the job after providing the necessary support by way of samples and appropriate literature. It is not unknown for a company after purchasing vans and equipping them, to issue a series of instructions so hedged around with restrictions that the entire operation became pointless. It is known that some head offices, due to inane involvement in the Nigerian daily affairs, have failed to remit salary and expenses to the destination required by their staff, yet these concerns have made no provision to confirm receipt of their customers' orders or indicate a shipping date.

"Barker vans" may be hired from indigenous concerns, and in some cases the I.A.-W.D. may be induced for a substantial annual fee from one of its principals to supply, staff and operate one. However in the writer's opinion the most satisfactory method of utilising this promotion method is for the manufacturer to own and operate its own vans and pay the van staff a commission. Those firms who have utilised "barker vans" have no regrets. Companies that have no experience or knowledge of them should appreciate that they simultaneously create immediate sales, advertise in terms understandable to the public and ensure immediate stock distribution within the area of operation. The value of those three factors are obvious when one contemplates the demand that exists for medicines in populated rural areas where no shops exist.

Success With Bonus Offers

In recent years bonus offers have been operated by some I.A.-W.D. Starting in Ghana they were soon highly successful but naturally terminated when import restrictions created conditions in which demand outstripped supplies. One concern in Nigeria has been particularly successful. Sales during bonus month invariably achieve quadruple the normal average monthly sales. In subsequent months increased sales are evident. According to the product and price, it is reasonable for an established product to experience a combined sales increase during the bonus month and the subsequent eleven months of at least 100 per cent. on the previous twelve months' sales.

A more costly way of getting a product off the ground is the mobile cinema and for a fee manufacturers can book film space from a firm that specialises in operating a circuit of mobile film vans. If that media is used careful selection of the product should be made and advice sought from the principal I.A.-W.D. To be really effective arrangements should be made to sell the product at the cinema site during a created interval and upon termination of projection. Radio is another excellent promotional media for medicines in Nigeria, but so many advertisers fail to obtain full value from that media because they fail to take advantage of those limited number of advertising agents established in Nigeria. In general a radio advertisement should have a good "jingle," the cost of which may be from £100 to £400. It can be used on the radios of other West African countries and thus should not be considered as too prohibitive a price.

Staff Problems

It is often contended that the main problem of opening in under-developed countries is finding suitable staff. Obviously there are problems of finding suitably qualified people willing to live overseas and the best are quickly snapped up. However there is another side to the problem. One often finds the productive, mature, hardworking man, writing business in the region of £250,000 per year and notching up increases of 10 to 20 per cent. each year is seriously irritated by senseless communications from his head office and his salary is no more than he can command in England. The compensation is longer leave and to those who have lived in the West African scene over the last few years that is precious little compensation since it is fully needed to regain physical health. If the recruiting company is American owned, the recruiting officer is usually compelled to go the rounds of the market to ascertain what the competitors are paying. Since competitors are human and don't want to precipitate a wage race nor lose their trained staff. It is seriously suggested that the information passed to the American friends is, or can be, highly suspect. Whatever the motives of this check my neighbour policy, the result is that invariably too low a salary is offered to attract men of maturity and calibre necessary for the tasks demanded of them. Nigerians are similarly recruited by the British end of American firms, the result is that unless recruited by an individual with considerable knowledge of peoples of a developing country, staff changes become frequent. Since West Africans as a whole do not function well against a background of insecurity then the potential employer has predetermined that whatever African staff he finally engages they will probably not work to the maximum of their ability. On the other hand a West African who has been carefully selected, trained and trusted can work as a medical representative without undue supervision and will prove himself a loyal servant to a company that is willing to take an interest in its staff. Africans in England occasionally approach the English office for employment in their home country. Although that is understandable from the Africans' viewpoint, it is wise to remember recruitment should be made in the country where the man is to work and preferably by the party to whom the recruit will eventually be immediately responsible.

There is an enormous demand for "ethical" products indicated in the treatment of disease endemic to the West African countries, e.g., malaria, amebiasis, leprosy, parasitic conditions such as schistosomiasis, filariasis, ascariasis, dracontiasis, etc., dysenteries of various aetiology, tropical skin disease, various anaemias, and of course trypanosomiasis. To list the classes of products for which there is increasing demand is impossible but apart from the obvious such as antibiotics and other antimicrobial and antiparasitic agents there is need for a long-acting, potent, non-habituating analgesic, antihistaminic products in all their forms and intravenous solutions in plastic bags (for all of which items there never appears sufficient stock available in the country).

Since there are a number of one-doctor hospitals the

problem of anaesthesia is considerable, hence the need of an anaesthetic agent possessing the more useful properties of a substance like 1-(1-phenylcyclohexyl) piperidine monohydrochloride and a crash research programme in that field could be most rewarding to a manufacturer thinking in terms of the vast number of under-doctored areas of the world.

Self-medication is evident in any community but more so in under-doctored countries of West Africa in general and Nigeria in particular. Aperients, tonics, cough medicines, vermifuges, haematinic agents, nasal decongestants, vitamin preparations, nutritional preparations (malt, iron and vitamins) paediatric remedies all stand an excellent opportunity if properly promoted and suitably priced and packed. It is not generally realised that the incidence of haemorrhoids in the adult male Nigerian is in the region of 20 per cent. and so far only one pharmaceutical house has made any serious attempt to cater for that enormous market. In the semi-toilet field a reasonably priced skin-bleaching agent has an enormous potential.

Recent political events on the West coast of Africa may temporarily have caused some manufacturers to look to other fields prior to seriously venturing to this *coup*-prone spot. So far as Nigeria is concerned there is no validity in the argument that the events of January 15 have disturbed previous views of investment confidence. The well informed were unsurprised at the overthrow of the Government for the Western Region situation was getting out of hand. From a marketing viewpoint where commitment is likely to be small there are fewer reasons today for a manufacturer to refrain from entering Nigeria under the present régime, than there were during the last four years.

Ghana is currently a different story. Compared with other African countries Ghana is rich. The people are industrious and recovery under a sound government should be quick. The writer cannot see Ghana as a fertile bed for the sort of international intrigue that went on in the Congo after law and order collapsed. Indeed law and order never collapsed in Ghana. Just because the immediate future of Ghana is slightly cloudy should not deter manufacturers giving serious thought to entering the country. Although relatively rich, Ghana will continue to require international aid to get her on her feet again.

Further, those concerns which have had a fair slice of the business offering in the past would do well to consider some gesture of immediate assistance by way of supplies of essential products on long-term credits. The Ghanaians have a happy knack of remembering who were their friends.

Problems of Manufacture

Manufacturing in West Africa as opposed to marketing presents far more serious problems, the most important of which are financial. Establishment costs would be high and it is really doubtful if any "ethical" manufacturer with a range of thirty or more products could capture sufficient of the market to render genuine manufacture (as opposed to merely local packing of bulk imported capsules, fluid or tablets) a viable operation. Thus for a concern going it alone, salvation, for years, would depend on third-party manufacture and this does not produce the profits to which large pharmaceutical concerns find themselves accustomed. However a consortium of "ethical" firms, if they could sink their differences, might well find it useful to protect their present and future business to establish a small versatile manufacturing unit at not too large an individual cost and viable, probably, in a comparatively short space of time.

TROUBLE IN STORE: Never, incidentally, should the doctor open the little white enamelled cupboard over the [patient's] wash-basin. To do so is like hitting the jackpot on a fruit-machine. A stupendous avalanche of tablets, pills, bottles, and dressings descends into the wash-basin, which is never the same again.—*A peripatetic correspondent in the Lancet.*

The Scunthorpe Tablet Cabinet

A REFERENCE SYSTEM FOR IDENTIFICATION

By GARETH HUGHES, F.P.S. (Group pharmacist, Scunthorpe Hospital Management Committee)

FOLLOWING publication of H.M. Circular (62) 13, which dealt with emergency treatment in hospital of cases of acute poisoning, the author proceeded to implement, amongst others, one of the recommendations—that which stated that, in each casualty department, there should be some form of “recognition panel or box containing labelled specimens of drugs. . . .” About 1,500 coloured preparations and white tablets bearing a characteristic indentation were exhibited on plates, each containing about 100 preparations of a single colour. They were kept, however, in the pharmacy and not in the casualty department.

For All Hospitals in Region

In 1963 the Sheffield Regional Board, through its pharmacy advisory committee, approved in principle that the project should be enlarged to cover all hospitals in the region. A subcommittee of three (Messrs. E. J. Fitchett, Leicester, W. G. Smith, Nottingham, and the author) was appointed to investigate the problem, and what is now known as the Sheffield identification cabinet was produced.

The cabinet contains a tier of forty-five plates, each independently suspended for ease of withdrawal. Above the tier are two drawers which hold the indices, etc. Each plate is drilled with rows of holes ranging from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. diameter, in which are placed the specimens. For those tablets whose obverse and reverse sides differ, two holes are provided, in order to illustrate both sides. A sheet of Perspex covers each plate, and through it the samples may be viewed.

The position of each tablet is read off in the same way as a map reference, and from an index its identification is determined. A system of cross-referencing is also available.

The colour distribution throughout the cabinet is as follows:—

Plates 1—7 Red	Plates 21—23 Blue
“ 8—12 Orange	“ 24—26 Brown
“ 13—17 Yellow	“ 27—31 Multi-coloured
“ 18—20 Green	“ 32—45 White

The front edge of each plate is finished in black Formica and bears a coloured disc corresponding to the colour of the tablets capsules mounted within the plate.

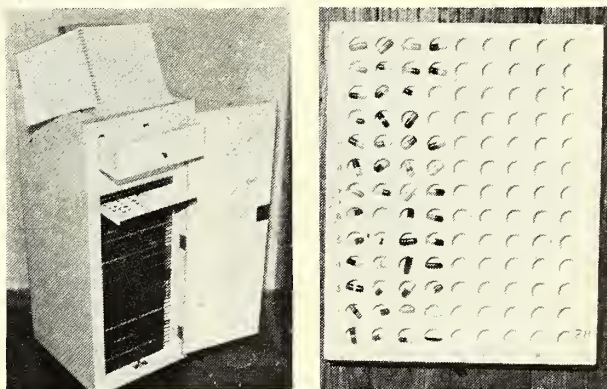
The cabinet, which has capacity for 5,500 specimens, is mounted on a plinth, the overall dimensions being 3 ft. 6 in. high x 16 in. deep x 11 in. wide. The top surface is finished in laminated plastic. A door provides the means of locking the plates within the cabinet.

In a massive exercise lasting several months in 1965, 1,600 preparations were mounted by the advisory committee and others into each of forty-four cabinets in accordance with a master index. (A prototype cabinet had initially been stocked by the subcommittee.) Distribution of the cabinets then followed to the various hospitals.

Space for Newcomers

Space was provided in the cabinet for additions, and a quarterly amendment service has been instituted. The cabinet seeks to show every prescribable coloured or marked white tablet/capsule, and in that way helps to overcome some of the numerous problems of tablet identification. For example, when a red sugar-coated tablet is presented for examination, there may be ten tablets illustrated which show the same macroscopic characteristics. Chemical testing of the unknown can then be concentrated on the ten likely to provide the answer rather than dissipated amongst a much greater number of possibilities.

The exercise also, by exhibiting as far as possible tablets of like appearance next to one another, served the salutary



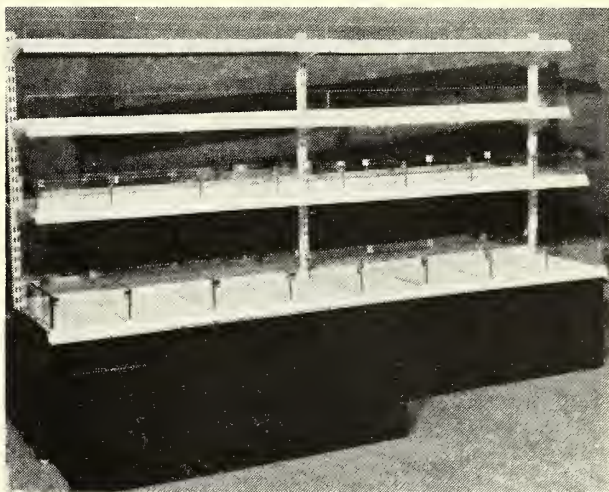
Left: The cabinet. Right: One of the plates.

purpose of illustrating the danger of placing too much reliance on visual identification.

The cabinets were manufactured by the Whitely Radio Co., Mansfield, Notts. The printing of the plate and card indices was undertaken by the Regional Board through the good offices of Mr. E. W. Sharman (Principal Assistant Secretary).

SOMETHING OF A MIX-UP: Involved in the talks are Ciba Laboratories and Roache Products, both Swiss-owned, Pfizer and Cyanamid, of Great Britain, both American-owned, and Mark Sharpe and Dohme.—*Newcastle Journal*, August 31.

SHOPFITTING NOTES



GONDOLA FOR DISPLAY OR STORAGE: A range of adjustable display and storage gondolas based on Spur adjustable shelving, is available from Savage & Parsons, Ltd., Watford, Herts. Providing free-standing single or double-sided displays the gondolas (there are nine in the range) are marketed either as complete design-supply-installation service to retailers, or supplied through shopfitters, designers and store architects. All are designed to a modular length of 1 metre (39.37 in.) to facilitate standardisation here and on the Continent, where the Spur shelving system is also widely used. Heights vary according to type (from 49½ to 78 in. for double-sided versions and from 78 to 89 in. for single-sided mural versions). The Rialto model is suggested for use in a pharmacy for toiletries and cosmetics. It is 49½ in. high by 31 in. wide at base. Shelf area of the 1-metre module is 21.25 sq. ft. in four tiers on each side of the unit, plus end-mounted glass shelving as required. Dump boxes on nylon runners are located in the base, and display plinths for ends are available. Glass clips and glass shelf-partitioning is available as a complete kit for dividing the metal shelves into the required number of compartments.

£ $\frac{3}{4}$ -million Extension to Laboratories at Welwyn

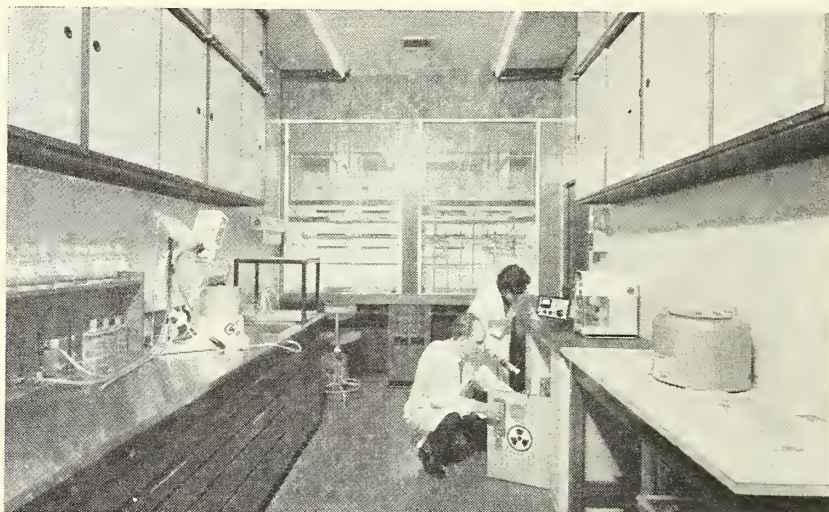
ONE-FIFTH OF A U.S. MANUFACTURER'S BASIC RESEARCH

ON June 2 Lord Cohen of Birkenhead declared open a £750,000 extension of the Smith Kline & French research institute, Welwyn Garden City, Herts, which since May 16 has included the former research and development division of Smith Kline & French Laboratories, Ltd. The unit now provides a 190-strong research team under Dr. Edward Paget with the facilities needed (in synthetic chemistry, physical organic chemistry, pharmacology, biochemistry, toxicology, pathology, pharmacy and analytical and quality control) to keep the company in the forefront of the pharmaceutical industry. Apparatus provided in the laboratories includes a £13,250 British-made electron microscope, a nuclear magnetic resonance spectrometer, a liquid scintillation spectrometer and an ultra centrifuge for preparing subcellular fragments of tissues.

Extent of the Laboratories

The additions bring the total laboratory space to 52,000 sq. ft., the majority of it devoted to the search for new drugs at fundamental level, though all the facilities necessary for development are available. Total capital invested in laboratories and equipment at Welwyn is now about £1.5 million, and additional facilities for work with larger animals and for the breeding of laboratory animals are located at Tallents Farm, Kimpton, about seven miles north of the works. A new library attached to the laboratories has a floor area of 4,800 sq. ft. and holds about 6,750 volumes, plus current issues of over 400 journals. Fifty-seven graduates are among the 190 people employed.

Lord Cohen, in his address, said that eighteen months ago, during a visit to the Johns Hopkins University, Baltimore, U.S.A., he had spent a few hours in Philadelphia at the new Smith Kline & French Laboratories. There he had



RADIOISOTOPE LABORATORY: Many radioactive compounds used in biochemistry are not commercially available and must be prepared as required. The new laboratory is designed for handling highly active compounds. Emphasis is on safety, and picture shows fireproof safe used for storing some of the compounds.

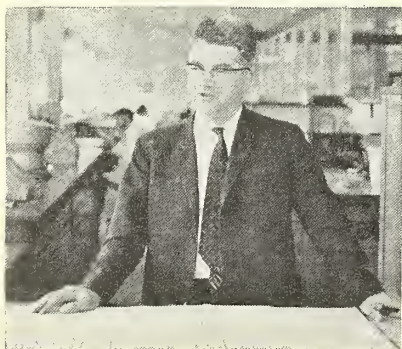
seen a set-up whose equipment, staffing and range of interest few university departments of pharmacology could equal, and it was doubtful if any could surpass. Why then another such research department in this country? Part of the answer was that one could never sponsor too much research. It was also true that, in the field of pharmacology and therapeutics, and especially in determining the purity of drugs, their formulation and methods of storage in optimum conditions, many decisions had to be taken as near the research scientists as possible. The new laboratories would be devoted to pure research, but commercial companies were not unaware of the lesson history taught that the chance observation falling on the percipient and prepared mind might well lead to developments of untold benefit for mankind.

The pharmaceutical industry had recognised the importance of pure as well as applied research, and that research transcended national boundaries. In the past decade the industry had not only doubled its own expenditure on research but had subsidised, by grants, research in universities and other academic institutions. In many instances there had been in the development of drugs (as with insulin and penicillin) a fruitful symbiosis between academic and industrial resources. Insulin had transformed the life of the diabetic. A diabetic child could now look forward to forty to fifty years of active life; a young man of twenty-five now had a normal expectation of life, and his activity was undiminished. Other aspects must not be overlooked. Since there was an inherited element in diabetes, the relative number of diabetics in the population would increase.

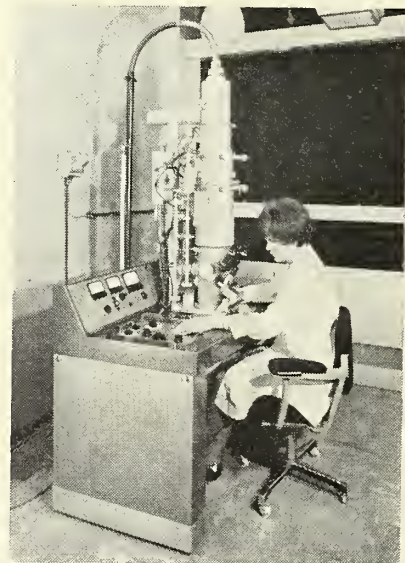
Professor Cohen cited other examples of research successes (vitamin B₁₂, isoniazid, PAS, etc.), but said its failures

must not be overlooked. The challenge they presented provided research laboratories with a stimulating opportunity: virus diseases, for example, still lacked an effective remedy; cancer still defied cure.

The medical profession needed to be educated in the wise use of drugs and in turn to educate the public to understand why no drug was wholly free from hazard. Yet, acknowledging all the hazards, who could deny, first that the advantages of proper use of modern drugs overwhelmingly outweighed their hazards; and secondly that, with increasing understanding of adverse reactions, even the risks would be significantly lessened?



DIRECTOR OF RESEARCH: Dr. G. Edward Paget, M.D., D.C.H., director of the research institute, now a division of Smith Kline & French Laboratories, Ltd. A member of the Pathological Society, Dr. Paget is a founder member of the European Society for Study of Drug Toxicity. He joined the company as director of the research and development division in December 1963. On May 16 the division was combined with the research institute to form a single organisation.



OPERATING THE ELECTRON MICROSCOPE: The electron microscope in the laboratories, capable of magnifying up to x 250,000.

In a country where nearly 40 per cent. of the products of an industry were consumed by the National Health Service, and which made so striking a contribution to the country's trade balance by its exports, he trusted no poli-

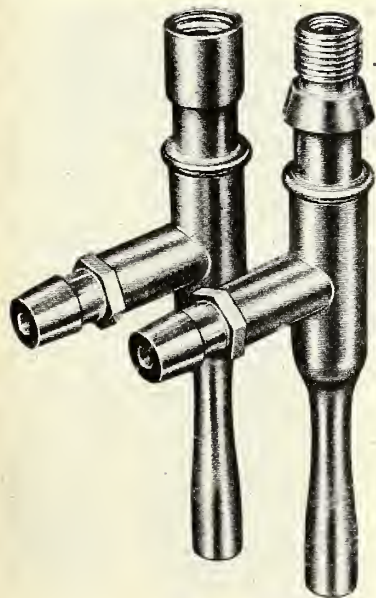
tical action would be taken that would restrict the free and unfettered research activities of the industry. Fair competition, fair profits and incentives were all motivating factors in ensuring that progress continued.

He had the greatest pleasure in declaring open the research laboratories, which were dedicated to the advancement of scientific knowledge and through it to the betterment of mankind.

INSTRUMENTS AND APPARATUS

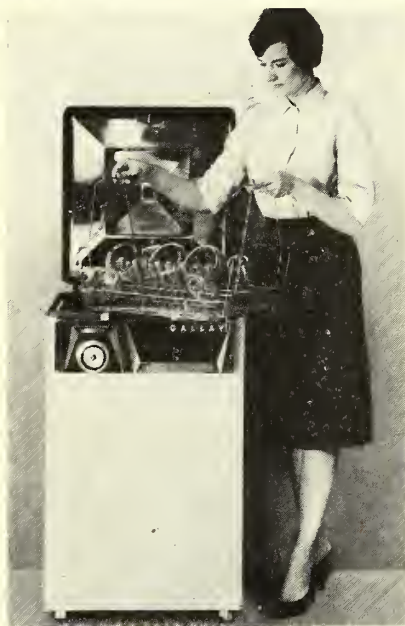
Water Unit on Loan. — Demstill Equipment, Ltd., 5 East Street, Shoreham-by-Sea, Sussex, offer a Demstill unit free on condition that not less than six cartridges are taken during a period of twelve months. The standard unit consists of a base with water inlet, a delivery spout and an easily detachable cartridge, which makes use of a mixture of anionic and cationic resins. Weighing about 5½ lb., the unit is easily placed near a cold-water tap, to which it is connected by means of a rubber or plastic hose. Recommended output for purity approaching maximum possible is not more than 50 litres per hour. The demineralised water obtained has a resistivity greater than 10 megohms. Each cartridge costs 30s. In an area where the water supply has a hardness of 300 ppm the cost per gall. will thus be about ninepence.

Water-jet Pumps in Stainless Steel. — After introducing a number of water-jet pumps offering varying degrees of



corrosion resistance Edwards High Vacuum, Ltd., Manor Royal, Crawley, Sussex, have produced a model completely in stainless steel that is claimed "an economic proposition." It replaces all other metal versions in the company's range. Model 7 has a ¼ in. B.S.P. male water inlet connection and model 8 a ¾ in. B.S.P. female water inlet connection. As both are suitable for 12-mm-bore rubber tubing one or the other may be fitted to standard laboratory water tape anywhere in the world.

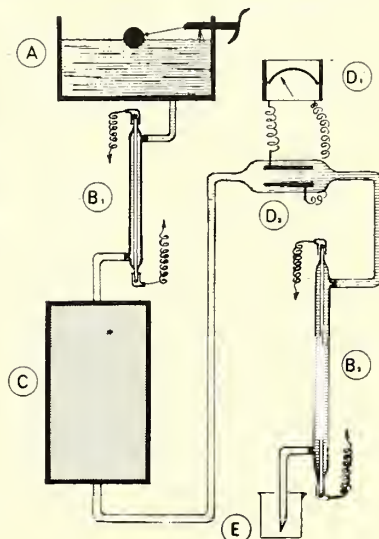
Laboratory Glass Washed Automatically. — Features of the Gallay automatic laboratory glass washer, marketed in Britain through the sole agents Jacobson van den Berg & Co.



(U.K.), Ltd., London, W.C.1, includes pre-washing, pre-selection of washing periods, and two rinses, with option of tap or distilled water for the second rinse. Water temperature may be varied up to near boiling point. By placing glassware in suitable positions on the baskets and stands the glass washer efficiently washes flasks up to 3-litre size, graduated cylinders up to 1 litre, test tubes, burettes, etc. Baskets are available either in stainless steel or corrosion-resistant plastic coating.

Sterile Water on Tap. — Equipment for producing sterile deionised water at the turn of a tap is available from Elga Products, Ltd., Lane End, Bucks. It consists essentially of a mixed-bed deionising cartridge that has been

sterilised during regeneration and is factory-sealed until put into use. As the diagram shows, the raw water passes into a header tank, from there through an ultra-violet radiator and then enters the deionising cartridge. On leaving the cartridge the effluent is monitored through a line cell on a conductivity meter. Before reaching effluent point it passes through a second ultra-violet

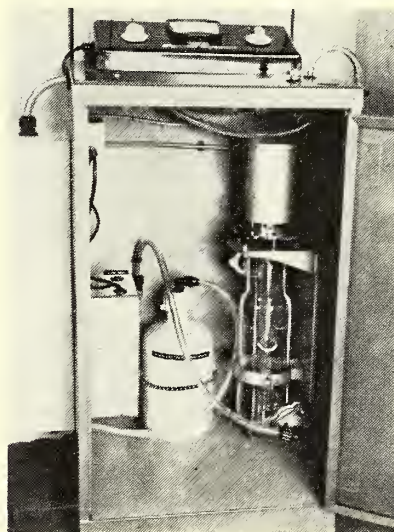


KEY :
A — Header Tank
B1 — U V Radiator
C — Cartridge M B Resin
D1 — Meter
D2 — Line Cell
B2 — U V Radiator
E — End Potty

radiator, the effluent point being kept sterile by immersion in a chemical sterilant. In that way, it is claimed, sterile deionised water may be drawn at tap speed without any heat treatment or filtration. The unit can be adapted to deliver from 15 to 200 gall. per hour according to requirements. It costs from £400.

COMPETITIONS

"World Cup" Competition. — Prizes worth £15,000 in all are being offered to winners in a Brylcreem World Cup competition organised by Beecham Toiletries Division, Great West Road, Brentford, Middlesex. Labels on the tubs give entry details. Printed on the reverse side of the back label are names of two international football stars who may be playing in the final series of matches between July 11 and July 30. If both players listed on a label are officially credited with scoring a goal, and if the entrant solves a triangle puzzle correctly, he qualifies for a Ferguson 16-in. portable television set, a Colston dishwasher, or a seven-day ski holiday for two. The competition closes on August 6 or when £15,000 worth of prizes have been won.



TRADE REPORT

The prices given are those obtained by importers, or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, JUNE 8. A little more activity was reported in some sectors of the CRUDE DRUGS market during the week, but price fluctuations were minimal.

Although Madras TURMERIC and Malabar PEPPER were marked down for forward delivery it was too early to assess what changes would be made in the price of other Indian produce following the devaluation of the Indian rupee (see p. 599). Prime seed CARDAMOMS for shipment were 2s. per lb. lower before that announcement was made. In GINGERS, African for shipment and Cochin on the spot were easier following the reduced Jamaican price of the previous week. There was some activity in MENTHOL but whilst Brazilian was 1s. 6d. per lb. dearer for shipment, spot remained unchanged as did the Chinese variety, in both positions. Costa Rican IPECACUANHA was easier for shipment but BUCHU was firmer.

In ESSENTIAL OILS, there was a demand for BOIS DE ROSE, spot ending the week ninepence per lb. up with shipment nominal. LEMONGRASS was lower by 2s. per kilo for shipment and by sixpence for spot. Lower for shipment were Chinese PEPPERMINT (by three-halfpence per lb.), Ceylon CITRONELLA (threepence) and PATCHOULI (10s.).

The new rates for QUININE are given below and again represent an increase. While there has been active demand on the Continent recently for quinine salts it is believed to have been mainly by speculators rather than users. There has been a substantial fall in the American price (see C. & D., June 4, p. 569), so that the buying spree may be over for a time. Nevertheless, bark is still difficult to obtain for manufacturing purposes and may become even more so following a special regulation of the Indonesian Government this week banning the export of all bark and revoking the licences for the collection of it in rural areas. Quinine exports from Indonesia will be in the form of salts only. LACTIC ACID and LACTATES are expected to be dearer shortly.

The Board of Trade is considering applications for the imposition of anti-dumping duties on imports of THEOPHYLLINE and THEOPHYLLINE HYDRATE and on imports of AMINOPHYLLIN originating in the Federal Republic of Germany. Representations on the applications have to be submitted to the Board of Trade's tariff division not later than June 17.

Pharmaceutical Chemicals

Where material is of foreign origin prices given below may be subject to import surcharge.

AMMONIUM ACETATE. — Kegs (70-kilos), B.P.C. 1949, 8s. 1d. per kilo. SOLUTION (200-kilo drums) strong, 3s. 6d. per kilo.

AMMONIUM BICARBONATE. — B.P. powder £54 10s. per ton; CARBONATE, £83 10s. for lump and £87 10s. for powder. All in 1-cwt. free kegs.

AMMONIUM CHLORIDE. — 50-kilo lots pure powder, 2s. 1d. per kilo.

AMMONIUM NITRATE. — Crystals, 1s. 8d. per kilo in 50-kilo lots, technical grade.

AMMONIUM SULPHATE. — 50-kilo lots, 2s. per kilo for B.P.C. 1934 grade.

ATROPINE. — Per oz. for 16-oz. lots: ALKALOID and METHONITRATE, 39s.; METHYLBROMIDE, 38s. 6d.; SULPHATE, 34s.

BENZYL BENZOATE. — B.P. in 1-ton lots, 4s. 8d. to 4s. 9d. per lb. as to container.

BISMUTH SALTS. — (Per kilo): —

Quantity	Under 50		50		250	
	s.	d.	s.	d.	s.	d.
CARBONATE ...	77	10	76	0	75	0
SALICYLATE ...	72	4	70	6	—	—
SUBGALLATE ...	67	10	66	0	—	—
SUBNITRATE ...	71	10	70	0	69	0

CALCIUM CARBONATE. — B.P. light precipitated powder, 1-ton lots, £37 10s. per ton in free bags, ex works.

CALCIUM CHLORIDE. — Fused, 3s. 11d. per kilo in 12½-kilo tin for 100-kilo lots.

CALCIUM GLUCONATE. — 1-4 cwt., 4s. 3d. lb.; 1-ton, 4s.

MAGNESIUM CARBONATE. — One-ton lots: LIGHT, 129s.; HEAVY, 148s. per cwt.

MAGNESIUM CHLORIDE. — Crystals in 50-kilo kegs, 5s. 6d. per kilo.

MAGNESIUM HYDROXIDE. — B.P.C., 1-cwt. lots, 4s. 1d. per lb.; 1-ton, 3s. 8d. per lb.

MAGNESIUM OXIDE, B.P. — LIGHT, 1-cwt. lots, 4s. per lb., 1-ton, 3s. 9d.; HEAVY, 5s. 10d. per lb.

MAGNESIUM PEROXIDE. — B.P.C. (15 per cent.), 3s. 11d. per lb. for 1-cwt. lots.

MAGNESIUM PHOSPHATE. — Tribasic, B.P.C., 1949, 10s. 1d. per kilo, in sacks.

MAGNESIUM SULPHATE. — B.P. in minimum 1-ton lots from £21 to £25 per ton. Exsiccated, £61 per ton.

MAGNESIUM TRISILICATE. — (Per lb.). Under 5-cwt. lots, 4s. 3d.; 1-ton, 3s. 6d.

METHYL TESTOSTERONE. — Per kilo, £95.

QUINIDINE. — British material: SULPHATE 3,589s. 4d. per 100-oz. for 500-oz. lots upwards.

QUININE. — British material in 1,000-oz. lots per oz.; SULPHATE, B.P., 1963, 21s. 7d.; BISULPHATE, 21s. 6d.; DIHYDROCHLORIDE, 30s. 3d.; HYDROCHLORIDE, 28s. 8d. ALKALOID, 29s. 11d. and HYDROBROMIDE, 26s. 11d.

SODIUM ACETATE. — B.P.C. 1949, 50-kilos, 4s. 0½d. per kilo.

SODIUM BENZOATE. — One-ton lots, 2s. 7½d. per lb.; 1-cwt., 2s. 9½d.

SODIUM BICARBONATE. — B.P., 1-cwt. bags £19 3s. per ton for 8-ton lots.

SODIUM BROMATE. — 50 kilo lots, 12s. per kilo, 1,000 kilos, 9s. 6d. per kilo.

SODIUM CARBONATE. — (Per cwt.), B.P.C. exsiccated, 1-cwt., 90s.; 5-cwt., 85s.; 1-ton, 80s.

SODIUM CHLORIDE. — Vacuum dried 172s. 9d. per ton in paper sacks for 6-ton lots, delivered London.

SODIUM CYCLAMATE. — Fifty-kilo lots offered at 9s. 2d. per kilo; 250 kilos, 9s. 1d. in free packages, delivered.

SODIUM FLUORIDE. — B.P.C., 1934, 50-kilo kegs, 9s. 9d. per kilo.

SODIUM HYDROXIDE. — FLAKE, £36 15s. per ton in 8-ton lots, STICKS, B.P. 1958, 50-kilos, 11s. 4d. per kilo in 5-kilo tin; PELLETS, 5s. kilo for 250-kilo lots.

SODIUM METABISULPHATE. — B.P. grade £47 17s. 6d. per ton. Commercial grade less 10s. per ton.

SODIUM NITRITE. — B.P.C., 50-kilo kegs, 5s. 8d. per kilo.

SODIUM PERBORATE. — (Per ton). TETRAHYDRATE (minimum 10 per cent. available oxygen), £142 5s. in 1-cwt. kegs; £134 15s. in 1-cwt. bags; PERBORATE MONOHYDRATE (minimum 15 per cent. available oxygen) is £309 15s.

SODIUM PERCARBONATE. — (Per ton), £173 15s. in kegs (bags £7 10s. per ton lower) for minimum 12½ per cent. available oxygen.

SODIUM PHOSPHATE. — B.P. crystals 5s. 10d. per kilo; POWDER, 7s. 7d.

SODIUM SALICYLATE. — One-ton lots in bulk, 3s. 11d. per lb.; 5-cwt., 4s.; 1-cwt., 4s. 2d.

SODIUM SULPHATE. — B.P. from £15 per ton as to crystal, B.P. exsiccated about £66 per ton.

SODIUM SULPHITE. — Four-ton lots: photo. quality, £28 per ton in bags.

SODIUM THIOSULPHATE. — Photographic crystals in paper-lined bags, £25 per ton in 4-ton lots.

ZINC CARBONATE. — 25-kilo lots, 4s. 7d. per kilo.

ZINC CHLORIDE. — B.P.C. 1954, cake, 15s. 5d. per kilo; sticks, 17s. 3d.

ZINC OXIDE. — Two-ton lots, B.P. grade, are now £131 10s. per ton; 1 ton, £132 10s.

ZINC PEROXIDE. — One-cwt. lots of B.P., 5s. 3d. per lb.

ZINC SULPHATE. — B.P., 50 kilos, 3s. 6½d.

Industrial Chemicals, Solvents

ACETALDEHYDE. — The 100 per cent, is £122 per ton minimum 1-ton lots.

ACETATES. — Per ton, spot in drums: AMYL, technical, £251 and B.S.S., £253. BUTYL, £128; ETHYL, £103; ISOBUTYL (80 per cent.), £105 and pure, £108; ISOPROPYL, £110; METHYL, 80 per cent., £142.

ACETIC ANHYDRIDE. — 12-ton lots £103 per ton; 2½-ton, £107, tanker deliveries.

ACETONE. — One-ton lots spot £68 per ton in drums.

N-BUTYL ALCOHOL. — One-ton lots in drums, £123 per ton and one-drum lots, £132 per ton.

CARBON TETRACHLORIDE. — Four-ton lots, in drums, £84 per ton.

HYDROCHLORIC ACID. — Commercial grade £17 2s. 9d. per ton ex works, in carboys.

ISOPROPYL ALCOHOL. — Technical grade (99 per cent.) in tank car lots from 4s. 6d. to 4s. 8d. per gall.; anhydrous in drums, 7s. 1d. to 7s. 4½d. per gall.; in bulk, 6s. 11d. to 7s. 1d.

METHYL ETHYL KETONE. — One-ton lots, £103 per ton.

NAPHTHALENE. — Contract rates for phthalic grade are from £25 per ton in bulk, ex works; lower crystallising whizzed grades from £20 to £25 per ton ex works; ball and flake, £71.

PHTHALATES. — Prices (per ton) one-ton lots in drums: Di-BUTYL, £153; Di-ISOBUTYL, £148; Di-ETHYL, £171; Di-METHYL, £161.

PHTHALIC ANHYDRIDE. — Domestic material ex contract, £88 to £90 per ton.

SODA ASH. — Four-ton lots, from 300s. per ton delivered.

STEARATES. — Minimum 1-ton lots, ALUMINUM (No. 1), £243 10s. per ton and (non-gel.), £281; CALCIUM (precipitated), £243 10s.; LEAD (30 per cent.), £245; MAGNESIUM (standard), £257 and (superfine), £287. ZINC, £246 to £276 as to grade.

SULPHURIC ACID. — 95° Baumé, £17 11s. per ton ex works, in carboys.

Crude Drugs

ACONITE. — Spot, Spanish *napellus*, 2s. 4d. per lb.; shipment, 2s. 3d., c.i.f.

AGAR. — Kobé No. 1, 17s. per lb. in bond; shipment, 17s. 3d., c.i.f.

ANNATTO. — Madras, f.a.q. seed, spot, 290s. per cwt.

BALSAMS. — (Per lb.): CANADA: Shipment, 27s. 6d., c.i.f.; no spot. COPAIBA: B.P.C., spot, 13s.; shipment, 11s., c.i.f.; PERU: 18s., spot; shipment, 15s. 6d., c.i.f. TOLU: B.P., from 12s. 6d.

BELLADONNA.—LEAVES, 6s. per lb., spot; shipment, 5s. 6d., c.i.f. ROOT, 1s. 8d. per lb., spot; shipment, 1s. 7d., c.i.f.

BENZON.—Sumatra block, spot from £20 to £40 per cwt. as to quality.

BUCHU.—Spot 7s. 6d. per lb.; shipment, 7s. 3d., c.i.f.

CALUMBA.—Mozambique root, 125s. per cwt. spot.

CAMPHOR. — B.P. powder for shipment, 4s. 4½d. per lb., c.i.f.; spot, 5s. 9d., duty paid.

CARDAMOM.—(Per lb.). Alleppy greens, 32s. 6d., spot and 26s. 6d., c.i.f. Prime seed for shipment, 43s., c.i.f.

CASCARA. — Spot, 245s. per cwt.; shipment, 245s., c.i.f., nominal.

CASSIA. — *Lignea*, whole for shipment, 230s. cwt., c.i.f.

CHAMOMILE. — Belgian flowers, 15s. to 16s. per lb., spot; German type, 7s. 6d.

CHERRY BARK. — Thin natural, 2s. 6d. per lb.; shipment, 2s. 4d., c.i.f.

CHILLIES. — Zanzibar, spot, 380s. per cwt.; shipment, 330s., c.i.f.; Mombasa, 485s., spot; shipment, 425s.

CINCHONA.—Ecuador bark, 8-07 per cent. t.a., offered at 2s. 6d. to 2s. 9d. per lb. as to quantity.

CINNAMON.—BARK, Seychelles, 140s. cwt. spot; shipment, 110s., c.i.f.; QUILLS Ceylon (per lb., c.i.f.): Five O's, 10s. 6d.; two O's, 10s.; Seconds, 8s. 10d.; quillings, 5s. 7d.; chips, 1s. 9d.

CLOVES. — Zanzibar, standard grade, spot quoted at 2s. 10½d. per lb.; shipment, 2s. 7½d., c.i.f.

COCHINEAL. — (Per lb.). Canary Isle silver-grey 15s. 6d.; black-brilliant, 18s.; forward, 17s. 6d., c.i.f. Peruvian silver-grey, 13s. 3d., spot.

COCCILLANA.—Bark, 3s. 6d. per lb. nominal. No shipment offers.

COLOCYNTH PULP. — Spot offered at 4s. 3d. per lb., shipment, 4s., c.i.f.

DANDELION. — Root is 165s. per cwt., spot.

DIGITALIS.—*Purpurea* leaves, 2s. 6d. per lb.

ELEM. — Spot, 1s. 7d. per lb.; shipment, 1s. 5d., c.i.f.

ERGOT. — Portuguese—Spanish, spot, 12s. per lb.; shipment, 11s. 6d., c.i.f., nominal. Continental, 9s., spot.

GENTIAN. — Root, 185s. per cwt. spot; shipment, 180s., c.i.f.

GINGER.—(Per cwt.). Nigerian split, 95s. spot, 70s., c.i.f.; peeled, 200s., spot, 170s., c.i.f. African, spot, 240s., shipment, 215s., c.i.f. Jamaican No. 3, spot, 300s., shipment, 250s., c.i.f.; Cochinchina, spot, 265s.; shipment, 245s., c.i.f.

GUM ACACIA.—Kordofan cleaned sorts, 167s. 6d. per cwt., spot; shipment, 156s., c.i.f.

HONEY. — (Per cwt.). Australian light amber, spot, 120s. to 125s.; and medium amber, 110s. to 115s.; Argentine, 125s. to 130s.; Canadian, 175s. to 180s.; Mexican spot, 110s. to 115s.

IPECACUANHA. — Matto Grosso for shipment, 54s. per lb., c.i.f. and spot, 56s. Costa Rican, 83s. 6d., spot; shipment, 76s., c.i.f. Colombian, spot, 58s. 6d. nominal; shipment not offering.

MENTHOL.—(Per lb.). Chinese for shipment, 29s. 3d., c.i.f.; spot, duty paid, 34s. Brazilian for shipment, 36s. 6d., c.i.f.; spot, 38s., duty paid.

NUTMEGS.—(Per lb.). West Indian, spot, defectives, 8s. 3d.; sound unsorted, 10s. East Indian for shipment b.w.p., 5s.; 80's, 10s. 6d.; 110's, 9s. 3d., all c.i.f.

NUX VOMICA.—Cochin, 110s. per cwt. on the spot; shipment, 80s., c.i.f.

ORANGE PEEL. — Spot: Sweet ribbon, 1s. 8d. per lb., bitter quarters: West Indian, 10½d.; Spanish, 1s. 9d.

PEPPER.—White Sarawak from 4s., spot; shipment, 3s. 6d., c.i.f. Black Sarawak, 3s. 4d., spot nominal; shipment, 2s. 6½d., c.i.f. Black Malabar spot not available, shipment, 330s., c.i.f.

PIMENTO.—Jamaican offered by resellers on spot at 1,100s. per cwt.

PODOPHYLLUM. — Spot per cwt.: *Emodi* 210s., spot; shipment, 195s., c.i.f.

QUILLAIA.—For shipment, 175s. per cwt. spot and c.i.f.

RHUBARB. — Various grades offered at from 5s. to 15s. per lb.

SARSAPARILLA. — Jamaican native red, spot, 3s. 6d. per lb.; shipment, 3s. 3d., c.i.f.

SAFFRON.—Mancha superior, spot, 750s. per lb.; Rio, 720s.

SEEDS. — (Per cwt.). ANISE.—Spanish, 240s.; Turkish, 185s., both duty paid. CARAWAY. — Dutch, 165s., spot. CELERY.—Indian on spot, 177s. 6d.; new crop for July–August, 165s., c.i.f. CORIANDER. — Spot, Moroccan cleared. Rumanian whole, 72s. 6d. Splits, 62s. 6d., all duty paid. Moroccan new crop for June–July shipment quoted at 69s., c.i.f. CUMIN. — Spot, Cyprian, 345s.; Syrian, 295s., in bond. Shipment Iranian new crop for July–August, 240s., c.i.f. Moroccan quoted at 260s., c.i.f. DILL.—Indian quoted at 130s., spot; shipment, 105s., c.i.f. FENNEL. — Chinese, 125s., duty paid; Indian, 150s.; shipment Chinese, 112s. 6d., c.i.f. Indian, 140s., c.i.f. FENUGREEK. — Moroccan, 67s. 6d., duty paid; shipment, new crop for June–July, 53s. 6d., c.i.f. MUSTARD.—English still in short supply at 70s. to 90s., according to quality.

SENNA. — (Per lb.). Tinnevely LEAVES spot; Prime No. 1, 2s.; No. 3, f.a.q., 1s. Shipment: No. 3, 1s., c.i.f. PODS: Tinnevely hand-picked virtually unobtainable on spot; manufacturing, 1s. 1½d.; shipment, 1s., c.i.f. Alexandria PODS: Hand-picked spot scarce at about 6s. 6d.; manufacturing, forward, 2s. 3d., c.i.f.; spot, 2s. 6d.

SLIPPERY ELM BARK. — Spot offered at 4s. 6d. per lb.

SQUILL.—Italian, spot, 125s. per cwt.; shipment, 110s., c.i.f.

STRAMONIUM.—Continental LEAVES, 85s. per cwt., spot.

STROPHANTHUS. — Kombé is nominally 25s. per lb. spot; no shipment offers.

STYRAX.—Spot, nominally 21s. 6d. per lb.; shipment, new crop, 21s., c.i.f.

TONQUIN BEANS.—Para, spot, 55s. 6d. per lb.; shipment, 5s. 6d., c.i.f.

TRAGACANTH.—Ribbon, No. 1, £175 to £180 per cwt.; No. 2, £155.

TURMERIC. — Madras finger quoted at 135s. per cwt. spot; shipment, 92s. 6d., c.i.f.

VALERIAN ROOT.—Indian, spot nominally 450s. per cwt.; shipment not offered. Continental root, 550s. nominal spot; no shipment offers.

VANILLIN.—(Per lb.). 5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d. All plus temporary import surcharges.

WITCH HAZEL LEAVES.—Spot quotations are 4s. 3d. per lb. nominal; prompt shipment, 4s., c.i.f.

Essential and Expressed Oils

ANISE. — Chinese, 9s. 4d., spot, shipment, 8s. 11d., c.i.f.

BOIS DE ROSE.—Brazilian spot, 17s. 6d., shipment, nominal.

CAJUPUT.—Spot from 10s. per lb.

CANANGA.—Spot from 37s. 6d. to 42s. 6d. per lb.

CARAWAY.—Imported from 56s.; English distilled from 70s. per lb.

CITRONELLA. — Ceylon, spot, 4s. 4½d.; shipment, 4s. per lb., c.i.f.; Formosan, 4s. 6d. in bond and 4s. 9d., c.i.f. Chinese, 4s. 3d. in bond; 4s. 2d., c.i.f.

EUCALYPTUS.—Chinese, 80–85 per cent., 11s. per kilo spot; shipment, 9s. 1½d., c.i.f. Portuguese 70–75 per cent., 5s. 7d. per lb.

FENNEL. — Spanish sweet, 16s. per lb., duty paid.

GERANIUM. — Bourbon, 87s. 6d. to 92s. 6d., spot; Algerian, 75s.

LEMONGRASS. — Spot, 26s. per kilo; shipment, 24s. 6d., c.i.f.

OLIVE. — For shipment: Spanish, £228–£235 per metric ton, f.o.b. Spanish port. Tunisian, £240 to £250 per metric ton, c. and f., London. Spot, £290 to £295 per long ton, in drums, ex wharf.

ORANGE.—Cold-pressed sweet oil, 4s. 9d. to 6s. per lb.; Spanish, 16s.

PALMAROSA. — Shipment, 185s. per kilo, c.i.f.; spot nominal.

PAITCHOULI. — Spot nominal; shipment, 100s. per lb., c.i.f.

PENNYROYAL. — Spot, 15s. per lb. duty paid; forward position is firm at 17s., duty paid.

PEPPERMINT.—(Per lb.). *Arvensis*: Chinese for shipment offered at 12s. 4½d., c.i.f., and spot, 12s. 6d. Brazilian for shipment, 13s. 3d., c.i.f.; spot, 13s. 3d. *Piperita*: Italian spot, 72s.; forward shipment, 82s. 6d. American from 39s. to 49s., as to source.

PETITGRAIN. — Paraguay for shipment, 13s. 9d., c.i.f.; spot, 14s. 3d. per lb.

PIMENTO. — Imported BERRY, 32s. 6d.; English distilled, 350s.; LEAF, 24s. per lb.

PINE. — *Pumilionis*, 20s. per lb., *sylvestris*, 8s.; *abietis*, 14s.

ROSEMARY. — Spanish, 13s. 6d. per lb., duty paid.

RUE. — Spanish is 22s. 6d. per lb. on the spot.

SAGE.—Spanish, 22s. per lb.; Dalmatian, 26s.

SANDALWOOD. — Mysore, spot, 108s. per lb. East Indian for shipment, 108s., c.i.f.

SPEARMINT.—American oil on the spot, 63s. to 67s. 6d. per lb. Chinese, 80s. per kilo, c.i.f.

TANGERINE.—Sicilian best quality about 40s. per lb.

THYME.—Red, 29s. 6d. per lb. for 45–50 per cent., duty paid.

VETIVERT.—Bourbon, spot, 85s. per lb.

YLANG YLANG. — Best oil quoted about 135s.

UNITED STATES REPORT

NEW YORK, JUNE 7: The price of MERCURY continues to fall, current rates per flask are now about \$350 (against \$355). SODIUM HEXAMETAPHOSPHATE is going up by 30 cents per cwt. on July 1. Most grades of BORAX are scheduled to rise on that day also. In ESSENTIAL OILS there is an easier tendency in domestic PEPPERMINT with the natural quoted at \$6.50 per lb., spot (\$6.75) and redistilled, \$7.10 (\$7.25). Brazilian MENTHOL was shaded 10 cents per lb. and TURMERIC and VALERIAN by one and two cents respectively.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

"Trade Marks Journal," May 18, No. 4577

For chemical products used in science and industry; and test papers (chemical) (1)

Device with letter and word W WHATMAN, B886,933, by W. & R. Balston, Ltd., Maidstone, Kent.

For chemical products for use in agriculture, horticulture, viticulture and forestry, all sold in drums and in paper bags (1) and for herbicides and insecticides, all sold in drums and paper bags (5)

FALLORAN, 871,082-83, by CIBA, Ltd., Basle, Switzerland.

For cleaning and polishing preparations; soaps, perfumes, non-medicated toilet preparations, cosmetics, and hair lotions (3)

GRATIELLE, 884,572, by Grattan Warehouses, Ltd., Bradford, 7, Yorks.

For toilet soaps, but not including disinfectant soaps or medicated soaps; and cosmetic preparations in cream, powder or solid form (3)

SENTEX, B878,340, by Norsk, A.S., Barnengens Tekniske Fabrik, Lysaker, Norway.

For perfumes, toilet water, non-medicated toilet preparations, cosmetics and perfumed soaps (3)

WHITE TOWER, 880,076, by Lancôme, S.A., Paris, France.

For perfumes, non-medicated toilet preparations, cosmetic preparations, preparations for cleaning the teeth, preparations for the hair, toilet articles, and depilatory preparations (3)

Device, 886,513, by Avon Cosmetics, Ltd., Northampton.

For non-medicated toilet preparations, cosmetic preparations, perfumes, soaps, essential oils, dentifrices (3)

LAMARO, 885,107, by CIBA, Ltd., Basle, Switzerland.

For non-medicated preparations for the hair for use by spraying directly on to the hair or on to a hair brush (3)

MADISON BRUSHENE, 887,589, by Charles Alexander & Co., Ltd., West Molesey, Surrey.

For perfumes, eau de Cologne, cosmetic preparations, dentifrices, non-medicated toilet preparations, toilet articles, soaps and essential oils (3)

SHOWERS OF FLOWERS, 889,258, by Romney Cosmetics, Ltd., Sandwich, Kent.

For medicated preparations for the feet (5)

FOOTHERIE, 876,736, by Richard Estrin, New York, U.S.A.

For pharmaceutical preparations being psychotropic drugs (5)

PSYSTIM, B878,946, by Roche Products, Ltd., Welwyn Garden City, Herts.

For pharmaceutical preparations and substances for internal use, all being in tablet form (5)

SE-CUR-A, B880,296, MEDALIN, 880,883, by Sterwin, A.G., Zug, Switzerland.

For veterinary preparations for euthanasia (5)

ANASLEEP FORTE, 882,615, by Willington Medicals, Ltd., Shrewsbury, Salop.

For pharmaceutical preparations and substances, none being for external application (5)

TONESS, 882,896, by Aziende Chimiche Riunite Angelini Francesco, S.n.C., Rome, Italy.

For pharmaceutical hormone preparations for use in animals (5)

CRONOIONE, 883,721, by G. D. Searle & Co., Chicago, Illinois, U.S.A.

For pharmaceutical preparations (5)

PERYSIT, B884,312, by A.B. Bofors, Bofors, Sweden.

For fungicides (5)

LASTIL, 887,055, by The British Drug Houses, Ltd., London, N.1.

For pharmaceutical preparations and substances (5)

GALATON, 888,017, by A. Wander, Ltd., London, W.1. MILCARE, 889,354, by Sterling-Winthrop Group, Ltd., Surbiton, Surrey.

For weedkillers, fungicides, acaricides and bactericides, all for agricultural use; and insecticides (5)

IOTOX, 889,850, by May & Baker, Ltd., Dagenham, Essex.

For pharmaceutical and veterinary preparations and substances (5)

TREMEDEVAC, TRIENDEVAC, 890,482-83, by Pfizer, Ltd., Sandwich, Kent.

For antibiotics, antibiotic preparations and preparations containing antibiotics (5) and for foodstuffs for animals; and food preparations for use as nutritional additives to foodstuffs for animals (31)

AGRIMYCIN, 882,366-67, by Chas. Pfizer & Co., Inc., New York, U.S.A.

For photographic apparatus and instruments and parts and fittings (9)

RAPIDETTE, B880,656, by Hanimex (U.K.), Ltd., London, S.E.1.

For photographic and optical apparatus and instruments; microscopes and spectacles; and parts (9)

TAMRON, 881,391, by Taisei Kogaku Kogyo, K.K., Saitama-ken, Japan.

For cameras and projectors, all being photographic and incorporating a lens of variable focal length, and parts and fittings (9)

BOOTS SUPERZOOM, 887,126, by Boots Pure Drug Co., Ltd., Nottingham.

For surgical and medical instruments, appliances and apparatus and parts (10)

FLEXITEX, 879,559, by Aspro-Nicholas, Ltd., Slough, Bucks.

For medical and surgical apparatus incorporating disposable dialysing coils for use in the treatment of kidney ailments (10)

CHRON-A-COIL, 885,447, by Baxter Laboratories, Inc., Morton Grove, Illinois, U.S.A.

For gloves for domestic use (other than bottling gloves of rubber or of like materials) and gardening gloves (21)

NORTHOBBY, 885,044, by James North & Sons, Ltd., Hyde, Ches.

For foodstuffs containing phosphate for animals (31)

MAGNAPHOSCAL, 879,910, by Guano-Werke, A.G., Hamburg, 1, Germany.

PATENTS

COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents)," May 11

Organobismuth compounds. M. & T. Chemicals, Inc. 1,033,485.

Gamma pyrones and preparation thereof. Chas. Pfizer & Co., Inc. 1,033,511-12-13.

Fungicidal compositions and methods of combating fungi. Shell Internationale Research Maatschappij, N.V. 1,033,516.

1-(Cyclopropylcarbonyl) ureas. British Drug Houses, Ltd. 1,033,517.

Compositions for reducing hypertension. Abbott Laboratories. 1,033,519.

3-Amino steroids. Sterling Drug, Inc. 1,033,520.

Process for the production of p-aminophenol. Miles Laboratories, Inc. 1,033,640.

Semioside salts. Mundipharma, A.G. 1,033,648.

Preparation of aromatic amines. Sumitomo Chemical Co., Ltd. 1,033,651.

Process for the production of tablets by the pressing of powder mixtures without previous granulation. E. Merck, A.G. 1,033,684.

Molluscicidal granules and their preparation. Shell Research, Ltd. 1,033,692.

Composition for combating molluscs. Shell Research, Ltd. 1,033,693.

Guanidine compounds. Pfizer, Ltd. 1,033,696.

Photographic characteristics of silver halide emulsions. Ferrania, S.p.A. 1,033,698.

Compounds of the androstane series. G. D. Searle & Co. 1,033,699.

Surgical instrument. J. E. Healey and E. B. Moore. 1,033,708.

Stable injectable protamine-active compositions. Evans Medical, Ltd. 1,033,736.

Topical medicaments comprising protamine and its derivatives. Evans Medical, Ltd. 1,033,737.

Bis-amide derivatives. Sterling Drug, Inc. 1,033,777.

Pharmaceutical composition for treating rheumatoid arthritis. E. C. Barton-Wright. 1,033,843.

Combinations of aluminium-chelating therapeutic adjuvants and aluminium chelating therapeutic adjuvants and aluminium chelates and process for making and using the same. Armour Pharmaceutical Co. 1,033,844.

Anti-tumour antibiotic, ivomycin. Kitasato Institute. 1,033,856.

Method of disinfecting and an autoclave for carrying out the method. K. A. O. Wallden. 1,033,885.

Process for the production of a nonapeptide. J. R. Geigy, A.G. 1,033,904-5-6.

Germicidal available iodine compositions and

method for preparing the same. West Laboratories, Inc. 1,033,907.

Anticoccidial compositions. Merck & Co., Inc. 1,033,909.

Pharmaceutical compositions containing quinazoline derivatives. Mead Johnson & Co. 1,033,910.

Anticoccidial compositions. Merck & Co., Inc. 1,033,916.

Derivatives of triphenylethanols. Richardson-Merrell, Inc. 1,033,970.

Connecting tube for catheters and surgical instruments. W. Rusch. 1,033,971.

Method of and apparatus for cleansing and/or sterilising bottles, ampoules or similar containers. W. Pechmann. 1,033,978.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from June 22.

From the "Official Journal (Patents),"

May 18

Container for dispensing selected quantities of fluid. R. J. Donoghue. 1,034,013.

Halogenated derivatives of phenol. Imperial Smelting Corporation (N.S.C.), Ltd. 1,034,036.

Process for the production of concentrated nitric acid. Farbwerke Hoechst, A.G. 1,034,038.

Sulpholane derivatives. Whiffen & Sons, Ltd. 1,034,041.

Pesticidal preparations. CIBA, Ltd. 1,034,049.

Cation exchange resin and process for the manufacture thereof. Pfaudler Permutit, Inc. 1,034,051.

Manufacture of hexachlorobenzene and pentachlorobenzene. Uddeholms, A.B. 1,034,069.

Animal growth promoters. Chas. Pfizer & Co., Inc. 1,034,081.

Absorbable prosthetic devices and surgical sutures. W. R. Grace & Co. 1,034,123.

Cyclohexylamine. Abbott Laboratories. 1,034,169.

Pregnane derivatives. Olin Mathieson Chemical Corporation. 1,034,184.

Thiophosphonic acid derivatives. Stauffer Chemical Co. 1,034,185.

Process for isolating α -antitrypsin from human or animal body fluids. Behringwerke, A.G. 1,034,186-7.

Process for preparing 17-alkylated pregnane derivatives. Ayerst, McKenna & Harrison, Ltd. 1,034,188.

Process for producing vitamin A, acid esters. Chugai Seiyaku, K.K. 1,034,189.

Acyllactamino compounds containing sulphuric acid ester groups and process for their manufacture CIBA, Ltd. 1,034,190.

Pyroolidino derivatives of acetamide. A. H. Robins Co., Inc. 1,034,192.

Basic ethers of guaiacol and thymol with a polyoxyethylene chain and their derivatives. Maggioni & C., S.p.A. 1,034,193.

5-Nitro-2-furylthioamide. Abbott Laboratories. 1,034,195.

Muscle relaxant compositions. Richardson-Merrell, Inc. 1,034,198.

Method of treating soil or dressing seeds to combat pytopathogenic fungi. Farbenfabriker Bayer, A.G. 1,034,199.

Phenothiazines. Upjohn Co. 1,034,200.

Fumigants. British Petroleum Co., Ltd., A. J. M. Wenham and A. D. Harford. 1,034,253.

Parentally administrable steroid compositions containing local anaesthetics. Merck & Co., Inc. 1,034,294.

Synthesis of organic amino compounds. Ionics, Inc. 1,034,298.

Dithiophosphonic acid esters. Farbenfabriker Bayer, A.G. 1,034,299.

Sulphonamides. C. F. Boehringer & Soehne, G.m.b.H. 1,034,300.

Production of diamine salts of dicarboxylic acid. Imperial Chemical Industries, Ltd. 1,034,307.

Body-protein-biosynthesis promoting composition. Chugai Seiyaku, K.K. 1,034,358.

Apparatus for sterilisation. A. Thomas. 1,034,367.

Method of and apparatus for sterile packaging of sterile substances. Alpura, A.G. 1,034,416.

Bactericidal viricidal anti-parasitic and cytotoxic compositions and their preparation. Egema, S.A. 1,034,433.

Substituted phenyl hydrazines and compositions containing them. Whiffen & Sons, Ltd. 1,034,481.

Eucalyptol derivatives. Laboratoires Albert Rol-land. 1,034,487.
N^o — trimethylacetyl - n - phenylalkylsulphamides and -phenylcyclopropylsulphamides. Smith Kline & French Laboratories. 1,034,490.
Phosphorus-containing dicarboximides and a method and composition for the control of fungi. Dow Chemical Co. 1,034,493.
Tri-methylol-phenol reaction products and their application. National Starch & Chemical Corporation. 1,034,497.
Process for preparing inosine and derivatives thereof. Ajinomoto Co. 1,034,498.
Propynyl-N-phenyl carbamates. Farbenfabriken Bayer, A.G. 1,034,499.
Bottle cap. F. J. St. Jacques. 1,034,518.
Acidic detergent iodine concentrates. West Laboratories, Inc. 1,034,524.
Stable solutions of heparin. W. T. Foley. 1,034,536.
Disubstituted aminoethoxy phenyl amines, esters and sulphides. American Cyanamid Co. 1,034,538.
Production of ω -lactams. Soc. Rhodiaceita. 1,034,559.
Surgical and like absorbent swabs. Johnson & Johnson. 1,034,584.
Tranquilliser compositions comprising 2-amino-pyrimidine derivatives. Smith Kline & French Laboratories. 1,034,608.
Pyrazolone carboxylic esters. Instituto Farmacologico Sero, S.p.A. 1,034,613.
Topical corticosteroid compositions and dressings. Johnson & Johnson. 1,034,623.
Tetracyclic and pentacyclic triterpene-guanyldra-zones. Farbenfabriken Bayer, A.G. 1,034,633.
Purification of urokinase. Abbott Laboratories. 1,034,635.
Alkaloids and processes for their production. J. R. Geigy, A.G. 1,034,677.
Method and apparatus for producing jacketed or coated tablets. Kruse, Hans. 1,034,713.
British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chan-cery Lane, London, W.C.2, from June 29.

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals.
PRONETHALOL. Antagonism of digitalis arrhythmia by: a neural phenomenon? *Nature*, May 14, p. 742.
A NEW DRUG for the treatment of fascioliasis in sheep and cattle. *Nature*, May 14, p. 744.
ALCOHOL. Metabolism of. *Science J.*, June, p. 60.
OPHTHALMIC SOLUTIONS. Preservation and steri-lisation of. *S.P.C.*, May, p. 371.
PLANT HORMONES and regulators. *Science*, May 6, p. 721.
DEMETHYLCHLORTETRACYCLINE HYDROCHLORIDE in acne. *J. Amer. med. Ass.*, May 2, p. 397.
ADVERSE DRUG REACTIONS. Symposium. *J. Amer. med. Ass.*, May 2, p. 404.
IPECAC SYRUP in antileptic ingestion. *J. Amer. med. Ass.*, May 2, p. 433.
ANALGESIC DRUGS. The toxicity of. *J. Phar. Pharmacol.*, June, p. 331.
ALLERGY. *Practitioner*, June.
PREGNANCY TESTS. A comparative study of. *Practitioner*, June, p. 821.
THALIDOMIDE. Effect of, on survival of skin homografts in rabbits. *Lancet*, June 4, p. 1240.
INFUSION OF SALINE SOLUTION. The mechanism of the acidosis caused by. *Lancet*, June 4, p. 1245.
DOWN'S ILEOSTOMY APPLIANCE. Modification of. *Lancet*, June 4, p. 1250.
TREATMENT OF ACUTE LEUKAEMIA in adults: Com-parison of steroid and mercaptopurine therapy, alone and in conjunction. *Brit. med. J.*, June 4, p. 1383.
AN ORGANO-PHOSPHORUS COMPOUND. Effect of ad-ministration of, as an anti-bilharzial agent, with special reference to plasma cholinesterase. *Brit. med. J.*, June 4, p. 1390.
SULPHYDRYL INHIBITORS. Muscle contraction pro-duced by. *Nature*, June 4, p. 1062.
AN INJECTION OF IRON-DEXTRAN COMPLEX. Effect of, on blood constituents and bodyweight of young kids. *Vet. Rec.*, June 4, p. 772.

PRINT AND PUBLICITY

PRESS ADVERTISING

CHESEBROUGH-POND'S, LTD., Victoria Road, Lon-don, N.W.10: Q-Tips cotton swabs. In mother and baby magazines and nursing journals.
J. & J. COLMAN, LTD., Carrow Works, Nor-wich: Robinson's Instant Foods. In *Woman*, *Woman's Own* and *Woman's Realist*.
RADIAN CHEMICALS, LTD., Radian House, 78 Upper Richmond Road, London, S.W.15: Radian products. In sporting Press.
SCHOLL MANUFACTURING CO., LTD., 182 St. John Street, London, E.C.1: Scholl foot exercise sandals. In leading national newspapers and popular women's magazines.
SOUTHALLS (SALES), LTD., Bessemer Road, Wel-wyn Garden City, Herts: Pretty Feet. Win an Automatic Mini competition in *Woman's Weekly*.
THAWPIT, LTD., 27 Sunbeam Road, London, N.W.10: Dry cleaner and cleaning pad. In *Woman*, *Woman's Own*, *Woman's Realist*, *Woman's Weekly* and *Reader's Digest*.
TONI CO., 215 High Holborn, London, W.C.2: Toni hair-colouring products. In *Woman's Own*.

PUBLICATIONS

Booklets and leaflets

ALCAN (U.K.), LTD., 30 Berkeley Square, Lon-don, W.1: "Aluminium Shopfronts" (8-p. brochure).
BAIRD & TATLOCK (LONDON), LTD., Freshwater Road, Chadwell Heath, Essex: Haake Roto-visko electrical rotary viscometer (8-p. book-let).
BRITISH COD LIVER OILS (HULL & GRIMSBY), LTD., Marfleet, Hull, Yorks: Costs and benefits of feeding quality rations using Super Solvitax or Solvitax (4-p. leaflet).
GEORGE T. GURR, LTD., 136 New King's Road, London, S.W.6: "Application of Histological Embedding Waxes" (8-p. leaflet).
HILGER & WATTS, LTD., 98 St. Paneras Way, Camden Road, London, N.W.1: Single grating monochromator D330 (16-p. booklet). Mono-spek 1000 and 600 grating scanning spectro-meters (16-p. booklet).
JAPANESE CAMERAS, LTD., 50 Piccadilly, Tunstall, Stoke-on-Trent, Staffs: Minolta SR-7 model V (12-p. folder). Kopli Kobena movie cameras (6-p. folder).
OSMOND AEROSOLS, LTD., Railway Street, Grimsby: "How to benefit from your own good looks assisted by Osmond aerosols" (4-p. folder).
PAUL PLUS, LTD., 29 King Street, Newcastle, Staffs: Plus precision products (4-p. leaflet).
RONSON PRODUCTS, LTD., Leatherhead, Surrey: Ronson electrical products (8-p. leaflet).
UNITED KINGDOM GLYCERINE PRODUCERS' ASSO-ciation, 45 Portman Square, London, W.1: "Glycerine and its derivatives" (20-p. book-let).

WESTBROOK LANOLIN CO., subsidiary of Wool-combers, Ltd., Daisy Bank, Duckworth Lane, Bradford, Yorks: Aqualose LL 100 (leaflet).
Catalogues and lists
PHOTOPIA, LTD., Newcastle, Staffs: 1966 cata-logue (pp. 98, cover charge 1s.).
ROCHE PROOUCTS, LTD., 15 Manchester Square, London, W.1: "Natulan" (file card).

WORLD TRADE

Long-term Balkan Agreement.—Hungary will export pharmaceuticals and chemicals to, and import synthetic materials from, Jugo-Slavia, under a long-term trade agreement for 1966-70, during which trade between both coun-tries is expected to go up by 60 per cent.

Colombian Decree Increases Cus-toms.—By Decree No. 564 of March 9, Colombia increased its Customs duties on twenty-four tariff items, in-cluding pesticides and fungicides, in order to protect local industry against competition from freely permitted im-ports. Further increases in duties are expected.

Bolivian Drug Imports. — Bolivian Decree No. 7473, issued recently, estab-lishes a tax of 15 pesos per gross kilo and *ad valorem* duties of up to 38 per cent. on the c.i.f. value, on imports of pharmaceutical products similar to those produced in Bolivia. Imports of pharmaceuticals not manufactured locally are exempt from the tax; the duties on them range from 17 to 25 per cent.

India Devalues Rupee.—The Indian Government on June 5 devalued the rupee by 36.5 per cent., pegging it at 21 rupees to £1 sterling against 13.33 rupees previously. The announcement said that Indian exports were priced out of world markets owing to the rupee's overvaluation, losing the coun-try foreign exchange earnings. Indian goods were unable to compete with im-ported goods even on the home market and despite heavy import duties. At the same time the Government are raising export duties on certain of India's traditional exports to prevent prices from slumping on the world market, where demand for them is assured.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Wednesday, June 15

BOURNEMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Post-graduate medical centre, Palmerston Road, Boscombe, at 1 p.m. Dr. S. M. Laird on "Sexually Transmitted Infections."
COUNTY OF SOMERSET BRANCH, PHARMACEUTICAL SOCIETY, County Hotel, Taunton, at 8 p.m. Professor D. A. Norton (head of department of pharmacy, Bristol University) on "A Re-view of the Legislation Affecting Medicines."
INTERNATIONAL CHEMICAL AND PETROLEUM ENGI-NEERING EXHIBITION, AND FOURTH CONGRESS OF THE EUROPEAN FEDERATION OF CHEMICAL ENGINEERING, Olympia, London, W.14. Until June 24.
SCOTTISH DEPARTMENT, PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 36 York Place, Edinburgh, at 2.30 p.m. Annual meeting.

Thursday, June 16

FINCHLEY BRANCH, PHARMACEUTICAL SOCIETY, Mer-maid theatre, Puddle Dock, London, E.C.4, at 7.15 p.m. Dinner and theatre visit.
ISLE OF WIGHT BRANCH, PHARMACEUTICAL SOCIETY, Bugle hotel, Newport. Annual meeting.

LEICESTER PHARMACY CRICKET CLUB, Victoria Park, Leicester, at 6.30 p.m. Leicester Sur-veyors XI. (Spectators welcome.)

Sunday, June 18

SOUTH LONDON AND SURREY PHARMACISTS' GOLF-ING SOCIETY, Blackmoor golf club, Bordon, Hants, at 9.30 a.m. Stableford competition played for prizes (morning) and "Go as you Please" (afternoon).

Advance Information

INSTITUTION OF CHEMICAL ENGINEERS, Geological Society of London, Burlington House, Picca-dilly, London, W.1. Meeting on "The Further Education of the Graduate Chemical Engineer." September 8.
INTERNATIONAL STORAGE AND WAREHOUSING DE-VELOPMENT EXHIBITION, Olympia, London, W.14. July 10-14, 1967.

Courses and Conferences

INSTITUTE OF BIOLOGY, Royal Geographical Society, Kensington Gore, London, S.W.7. Sym-posium on "Biology and the Manufacturing Industries." September 29-30.



What doctors are reading about developments in drugs and treatments

FOUR proprietary *in vitro* tests for pregnancy have been compared for accuracy with the Hogben biological test (using female toads) in the Aberdeen city hospital laboratory. The products tested were Pregnosticon (Organon Laboratories, Ltd.), Prepurin (Burroughs Wellcome & Co.), an Ortho "tube" test and an Ortho latex "slide" test. No test gave 100 per cent. correlation with the clinical findings. The tests based on inhibition of haemagglutination gave the higher error rate in positivity and the lower rate in negativity, whereas the Hogben test and the two Ortho tests gave lower error rates in positivity but higher error rates in negativity. The paper's authors state that the Hogben test would seem to be replaceable by tube or slide tests, none of the results of any of the tests, including the Hogben, must be interpreted on their own as proof, or otherwise, of pregnancy. (*Practitioner*, June.)

No clear "best" schedule for treating acute leukaemia was found in a controlled trial of steroid and mercaptopurine therapies reported by a Medical Research Council working party. Longest median survival period (70 days) was in a group treated with steroid alone (prednisone 40 mgm. daily). Next came a group on mercaptopurine alone (2.5 mgm./kilo body weight daily) with median survival of 62 days, followed by one on a combination of mercaptopurine and pred-

nison at those dose rates (41 days). The statistical results in those groups were significantly different from results in a fourth group on a combination of mercaptopurine with high steroid dosage (250 mgm. a day), for which the median survival period was only 21 days. The slight superiority of steroid therapy at normal dosage was found both in myeloid and lymphoblastic leukaemia. (*B.M.J.*, June 4, p. 1383.)

A HYPOTHESIS put forward in 1965 (see *C. & D.*, September 25, 1965, p. 330) that thalidomide causes foetal abnormality by acting as an immunosuppressive agent and allowing the survival of malformed foetuses that would otherwise have aborted is invalidated by results obtained by workers at the University of Newcastle upon Tyne. The hypothesis was based on a finding in mice that thalidomide prolonged the survival of skin homografts. In the present work (on New Zealand white rabbits) the drug was found to have no effect on skin graft survival, though in pregnant animals of the same type it did produce characteristic foetal abnormalities. (*Lancet*, June 4, p. 1240.)

ALLOPURINOL represents a major advance, according to *Drug and Therapeutics Bulletin*, in the treatment of patients with uric acid stones or gravel. The compound is also said to be valuable in patients with primary or secondary gout, in whom uricosuric agents have not achieved adequate biochemical control. (*D. & T.B.*, May 27.)

NEW COMPANIES

P.C.—Private Company. R.O.—Registered Office.

BAMFORD & CURZON, LTD. (previously registered as **CHORLEY PHARMACY, LTD.**) (P.C.).—Capital £100. To carry on the business of chemists, etc. Directors: M. H. Bamford, M.P.S., and B. K. Curzon, M.P.S. R.O.: 19 St. Georges Street, Chorley, Lancs.

CHEMSIL MANUFACTURING CO., LTD. (P.C.).—Capital £2,000. To carry on the business of manufacturers of and dealers in chemicals, etc. Directors: Anthony J. Gumbiner and John R. Lucraft. R.O.: 50 Lansdowne Place, Hove.

CLERICI BEAUTY PRODUCTS, LTD. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in cosmetics, etc. Subscribers: W. Middleton and C. R. Potts, 158 Fenchurch Street, London, E.C.3.

COSMETIC CONSULTANTS, LTD. (P.C.).—Capital £100. To carry on the business of research chemists and beauty specialists, etc. Subscribers: Joan O. Bryant and John J. Glover, 73 Basinghall Street, London, E.C.2.

DIPONIC PRODUCTS, LTD. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in chemicals, gases, drugs, etc. Subscribers: Leonard H. Lewis and Francis A. Dean. R.O.: 6 Surrey Street, London, W.C.2.

D. R. FOX ENTERPRISES, LTD. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in household soap, detergents, etc. Subscribers: Muriel Goldstein and Brian Goldstein, 25 The Glade, Ilford.

J. ILES (CHEMICALS), LTD. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in shampoos, setting lotion, perfumes, etc. Directors: Jeremy J. Iles and Anna M. Iles. R.O.: 4 Crowborough Road, Southend-on-Sea, Essex.

JENNER INSTITUTE, LTD. (P.C.).—Capital £100. To carry on the business of manufacturing, wholesale and retail chemists, etc. Directors: Gordon J. Roderick and Sidney A. White. R.O.: Chelsea Gardens, Chelsea Bridge Road, London, S.W.1.

W. A. OGDEN (CHEMIST), LTD. (P.C.).—Capital £3,000. To carry on the business of chemists, etc. Subscribers: Majorie S. Ogden, The Rookery, Wymondham, Norfolk, and David C. Stone, M.P.S.

M. J. W. PAINE, LTD. (P.C.).—Capital £4,000. To carry on the business of chemists and druggists, etc. Directors: Maurice J. W. Paine, M.P.S., and Barbara E. Paine, 110 Doveham Lane, Solihull.

COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during the week covered, be screened seven times and for a total of 105 seconds.

Period June 19-25	London	Midland	North	Scotland	Wales & West	South	North-east	Anglia	Ulster	Westward	Border	Grampian	Fireman	Channel Is.
PRODUCT														
Anadin	5/150	5/104	2/60	2/60	3/100	2/60	2/60	3/100	4/120	1/30	2/60	1/30	—	1/30
Askit powders and tablets	—	—	—	7/49	—	—	—	—	—	—	3/21	2/14	—	—
Bisodol	—	—	—	—	5/35	—	—	—	2/14	—	—	—	—	—
Dentu-Creme	1/30	1/30	2/60	1/30	1/30	1/30	2/60	1/30	1/30	1/30	1/30	2/60	—	2/60
Dentural	—	—	—	—	6/90	—	—	—	—	—	—	—	—	—
Dipity-Do	1/30	1/30	1/30	1/30	1/30	—	1/30	1/30	1/30	1/30	1/30	1/30	—	—
Dr. Wernets denture powder	—	—	—	—	—	3/90	2/60	—	—	—	—	—	—	—
Entero-Vioform	3/90	—	—	—	—	3/90	—	—	—	—	—	—	—	—
Eucryl smokers' tooth-powder	—	—	—	2/30	—	2/30	2/30	—	—	—	—	—	—	—
Freezone	—	2/14	1/7	—	5/35	—	5/35	—	—	—	—	3/21	—	—
Fresh-air	4/44	4/44	4/44	4/44	4/44	4/44	4/44	4/44	4/44	4/44	4/44	4/44	—	4/44
Immac	2/60	1/30	2/60	1/30	2/60	1/30	2/60	2/60	7/60	1/30	5/30	1/40	—	1/30
Ingrams shaving cream ...	1/30	1/30	1/30	—	—	—	—	—	—	—	—	—	—	—
Loxene shampoo	2/60	1/30	1/30	1/30	1/30	1/30	2/60	1/30	1/30	1/30	2/60	1/30	—	—
Moorland indigestion tablets	—	—	—	—	1/45	—	—	—	—	—	—	—	—	—
Mum Rollette	2/14	2/14	2/14	2/37	3/67	4/74	3/67	2/37	2/37	2/37	1/30	3/67	—	—
Nair	2/30	—	2/30	2/60	2/30	2/30	2/60	2/30	2/60	2/30	2/60	—	2/30	2/30
Polaroid sunglasses	2/60	2/60	—	—	—	2/60	—	—	—	—	—	—	—	—
QT suntan lotion	2/60	—	—	—	—	—	—	—	—	—	—	—	—	—
Rinsead pastilles	5/75	1/15	2/30	3/45	1/15	3/45	1/15	2/30	1/15	3/45	1/15	1/15	—	2/60
Valderma balm	1/30	1/30	1/30	1/30	1/30	1/30	1/7	1/30	1/30	1/30	—	1/30	1/30	—
Vitalis	2/14	2/52	2/52	1/45	2/52	2/52	3/97	1/7	1/7	2/90	2/52	3/97	—	—
Wright's coal tar soap ...	1/15	—	—	1/15	2/30	1/15	—	1/15	—	1/15	1/15	1/15	—	—

Cumulative price changes

AMENDING C & D QUARTERLY PRICE LIST FOR JUNE 1966

[illegible]

the original half-volume, ideally balanced, **TRIPLE ANTIGEN**

* DIPHTHERIA

* TETANUS

* WHOOPING COUGH

TRIVAX

trade mark



BURROUGHS WELLCOME & CO. (*The Wellcome Foundation Ltd.*) LONDON

(6) (12)	59 118	Oea Oea	14 28	4 1/2 9 1/2	105 210	0 0
Corvette (1534 Corvette)						
after shave lotion	32	10	7	9 1/2	4	9
hair cream	27	7	6	6 1/2	4	0
pre-electric shave	32	10	7	9 1/2	4	9
shaving bowl	53	6	12	8 1/2	7	9
refill	32	10	7	9 1/2	4	9
shaving stick	29	4	6	11 1/2	4	3
refill	20	9	4	11 1/2	3	0
talcum powder	32	10	7	9 1/2	4	9
Cussons (338 Cussons)						
Elaine talcum	4503	19	11	5	0	2 1/2
Spring Fancy talcum	4723	13	7	3	4 1/2	2
D apple blossom soap	2190					
D blue hyacinth dusting powder	4455					
D talcum	4453					
D damask rose soap	2192					
D toilet water	5746					
D dusting powder	4455					
D kiddywink bath cubes	631					
D lilac mist soap	2193					
D Linden range						
D orchid & gardenia talcum	4463					
D Rhapsody range						
D Royal Guard range						
D soap flakes	2086					
D wild lavender range						
D men's range						
after shave	5040	17	0	4	3	2
	5041	30	6	7	7 1/2	4
	5042	38	5	9	7 1/2	5
brilliantine						
liquid	5000	17	0	4	3	2
	5001	23	10	5	11 1/2	3
solid	5489	11	10	2	11 1/2	1
Cologne	5160	23	10	5	11 1/2	3
	5161	39	4	9	10	5
deodorant aerosol						
	5121	37	2	9	3 1/2	5
hair cream	5005	17	0	4	3	2
hair grooming						
	5002	23	10	5	11 1/2	3
	5003	39	4	9	10	5
	5004	39	4	9	10	5
shave cream tube						
	5080	21	3	5	4	2 1/2
shaving bowl	2203	40	4	10	1	5
refill	2206	22	2	5	6 1/2	3
shaving foam aerosol						
	5081	54	6	13	7 1/2	7
shaving stick	2224	16	10	4	2 1/2	2
refill	2225	10	7	2	8	1
shower talcum	4439	30	6	7	7 1/2	4
D old range						
D Dalmas (347 Dalmas)						
belladonna plaster†	10	2			1	3
7 1/2 in X 5 in						
1 1/2 in X 7 in	20	2			2	6
D.D.D. (359 DDD)						
(distributors 366 Dendron)						
balm tube 30gm	30	4	7	7	4	0
D Delafine (1416 DL)						
bath crystals jar	13	0	3	3	2	0
D Diamator (16 AGL)						
slide projector	100				567	0
	150				999	9
D Diawat (980 Photopia)						
transparency viewer						
W59					7	6
D Di-Ademil-K (1176 Squibb)						
tablets	25					
D Edixa (980 Photopia)						
camera 16	E249				597	9
	E240					
D Edixaflex (980 Photopia)						
camera	E1				821	7
case	E217				93	7
D Edixamat (980 Photopia)						
Kadett	E1					
D Educot (851 MHP)						
tablets	80	51	10	12	11 1/2	7
	160	86	1	21	6	12
D Efcortelan (518 Glaxo)						
intra-articular injection						
with neomycin						
D Eversharp (1054 R&A)						
stainless steel razor						
blades (4)	34	4	8	7	5	0
D Fibron (1367 R&B)						
cream	16	0			2	0
	36	0			4	6
D Flacitrin (799 MP) existing entry						
Flacitrin 500 (799 MP)						
	100	36	0ea	9	0ea	57
sachet	39	0ea	10	0ea	62	0
D Floret (1037 Reckitt)						
size 8						
D Florinef (1176 Squibb)						
lotion						
D Iotion with Graneodin						
Fujica (565 Hanimex)						
35mm Mini camera	171	6ea	42	3ea	299	6
Genasprin (1530 Fisons)						
tablets	28	13	2	3	3	2
	50	22	0	5	6	3
	100	36	8	9	2	5
Germolene (104 8P)						
tin	19	6	4	6	2	6
	37	0	8	7	4	9
tube	19	6	4	6	2	6
	9	0			1	0
	18	0			2	0
Goya (532 Goya)						
Timeless						
creme perfume						
flowette	58	5	14	2 1/2	8	6
perfume royal						
flacon	867	0	216	0	126	0
D Cologne	170cc					
D eau de toilette	25cc					
Granobisk (535 Granose)						
	16	17	4		1	9
Granogen (535 Granose)						
11b	8	8ea			10	6
D Granolac (535 Granose)						
11b	8	8ea			10	6
Granose (535 Granose)						
fruit bran	8oz	19	9		2	0
meatless steak	16oz	36	3		3	8
peanut butter	6oz	16	0		1	8
	12oz	28	0		2	11
peanut crumble	6oz	16	0		1	8
	12oz	28	0		2	11
D safflower oil	20oz	64	10		6	9
	1 gall	31	2ea		39	0
Grey Charm (525 Golden)						
hair colouring	33	2	8	3 1/2	4	10
D G. S. (1324 Westminster) tablets						
Haelan (378 Distal) T5						
cream/jointment						
	60gm	11	1ea		16	7 1/2
Haelan-X (378 Distal) T5						
cream/jointment						
	15gm	8	3ea		12	4 1/2
Hanimex (565 Hanimex)						
projectors slide						
Hanomat 1000						
iodine quartz	293	4ea			440	0
Harpic (1037 Reckitt)						
lavatory cleanser	8	15	9		1	9
	A	25	4		2	10
Hill's (605 Hill's)						
balsam pastilles	20	4	5	1	2	9
bronchial balsam						
†DDI	28	0	7	0	3	11
	47	0	11	9	6	6
junior balsam	23	4	5	10	3	3
Kwic-bru (535 Granose)						
6oz	52	0			5	3
2 1/2lb	26	10ea			32	6
3 1/2lb						
D Layla (1372 CCL) existing entry						
D Layla (1372 CCL)						
nail enamel						
regular	37	6	8	11	5	6
transparent	37	6	8	11	5	6
pearl	50	0	11	11	7	6
remover	24	0	5	8	3	6
	30	0	7	2	4	6
Lemon Delph (496 Garsalle)						
cleansing milk	65	0	16	3	9	6
Limmits (1552 UL)						
milk chocolate	20	3	3	0	2	6
Lucozade (103 8F)						
small	7	9 1/2	1	2	1	1*
large	27	6 1/2	4	1 1/2	3	0*
*Includes 3d for container						
Macprin (104 8P)						
	18	9	4	4	2	5
Max Factor (813 MF)						
family deodorant spray						
	43	4	10	4	6	3
Miss Bronnley (194 Bronnley)						
bubble bath oil					7	6
shampoo					6	6
skin perfume					7	6
talcum					6	6
Movector (16 AGL)						
projector 85					672	6
standard					740	0
with zoom lens						
Mum (172 BMCL)						
cream	18gm	16	6	3	11	2
existing sizes						
Neodex (1485 Diva)						
55 suppositories†	12	44	0	11	0	6
Nestle (451 F&J)						
Colorspraze	56	7	14	2	8	3
Natural Net	6oz	29	2	7	3 1/2	4
Spraze	6oz	29	2	7	3 1/2	4
blonde	6oz	29	2	7	3 1/2	4
soft	6oz	29	2	7	3 1/2	4
D Streaks "n" Tips						
Nivebaxin (147 Boots) T5						
powder	15gm	72	0	18	0	10
Norone (1087 Roussel)†s48						
pregnancy test	60	0			7	6
Optima (16 AGL)						
cameras						
500 5N					1088	0
Rapid 250 V					721	9
Petri (637 Hunter)						
cameras						
Racer 12-8 lens						717
11-8 lens						912
case						66
Seven 5 12-8 lens						597
11-8 lens						756
case						66
Petriflex (637 Hunter)						
camera 35mm V6						1325
D Photopia (980 Photopia)						
cine camera						
Super 8 (51) P163						467
(Z1) P154						630
pouch case P165						25
exposure meter P20						131
rangefinder P86						59
Polycrol (894 Nicholas)						
gel	12oz	89	0	22	3	12
D Praenitrona (973 Pharmaceuticals)						
Rissol-nut (535 Granose)						
	16oz	38	9			3
Rolleiscop (637 Hunter)						
slide projector						1520
Salter (1095 Salter)						
baby scales 50DP						133
	50B					125
dietary scales 18D						17
	33D					62
D Samco (41 A1) existing entry						
D Samco (41 A1)						
sunglasses, ladies*						
	275					2
	265					3
	209					4
	234/207					5
	225/270/11/2/3					7
	335/258/302/317					8
	210					7
	318/319					8
	263/242					9
	387/315					10
	395/405/388/408/					
	9385/316/407	</				

Primary lactic	38 0	9 6	5 0	6834	31 4	—	3 11	Chevalier	—	—	90 0
ma (343 DH)				054	36 0	—	4 6	Clipover	—	—	55 0
ing cream	22 10	5 8½	3 0	6870	47 4	—	5 11	Clovely	—	—	90 0
343 DH)				099	60 0	—	7 6	Coquette	—	—	90 0
urless medium	20 10	5 2½	2 9	098	63 4	—	7 11	Danube	—	—	126 0
aze (1565 WMCC)				1905	71 4	—	8 11	Helios	—	—	86 0
tributors 812 M&PP and 179 BDH)				6848	79 4	—	9 11	for men	—	—	86 0
rosol for stingst	—	—	4 11	1921	84 0	—	10 6	Hurlingham	—	—	180 0
itzer (980 Photopia)				239	100 0	—	12 6	Langham	—	—	67 6
meter (980 Photopia)				2445	111 4	—	13 11	for men	—	—	67 6
finder I WIA	—	—	67 9	249	127 4	—	15 11	Lisbon	—	—	99 6
WI				2480	156 0	—	19 6	Model G	—	—	175 0
ross (1334 WOC) existing entry				kiddies' 6865	23 4	—	2 11	Model M	—	—	115 0
ross (1334 WOC)				Tween-age				Regent	—	—	168 0
glasses				boys 6871	28 0	—	3 6	Riviera	—	—	105 0
price	360 0	—	45 0	girls 6849	28 0	—	3 6	San Remo	—	—	87 6
rlton	316 0	—	35 0	clipovers							
anette	240 0	—	39 6	Popular	23 4	—	2 11				
ta	240 0	—	30 0	Deluxclip	54 0	—	6 9				
voy	168 0	—	21 0	duo	54 0	—	6 9				
na	204 0	—	25 6	two-some	36 0	—	4 6				
shion ladies				flip-clip	63 4	—	7 11				
834/308	31 4	—	3 11	Yex (535 Granose) 3oz	19 2	—	2 0				
637	36 0	—	4 6	8oz	38 5	—	4 0				
71	47 4	—	5 11	16oz	62 5	—	6 6				
825	54 0	—	6 9	Zac (626 HH&C)							
874	55 4	—	6 11	baby cream tube	14 9	3 6	2 0				
87	60 0	—	7 6	jar 2oz	22 0	5 3	2 11				
97	71 4	—	8 11	4oz	31 4	7 5	4 3				
90	79 4	—	9 11	Zam-Buk (1530 Fisons)							
450	84 0	—	10 6	ointment	11 3	2 9½	1 6				
79	100 0	—	12 6		16 10	4 2	2 3				
447	111 4	—	13 11	D Zeiss Umbral (1436 D&Co) existing entry	38 0	9 6	5 0				
78	127 4	—	15 11	I Zeiss Umbral (1436 D&Co)							
480	156 0	—	19 6	sunglasses							
shion men's				Beachcomber	—	—	110 0				
873	28 0	—	3 6	Capri	—	—	110 0				
				Cavendish	—	—	65 0				
				for men	—	—	72 0				

AMENDMENTS TO KEY TO SUPPLIERS

114 BTC=Benross Trading Co., Ltd., 29 Everton Brow, Liverpool, 3. North 0471.
228 Carlton=Carlton Laboratories (Southern), Ltd., 14 Peter Road, Commerce Way, Lancing, Sussex.
542 Griffin=David Griffin, Ltd., Holland Way, Blandford, Dorset. Blandford 2678.
587 Heath=Roland C. Heath, 33 Winchester Road, London, N.W.3. Primrose 2405.
669 Sorelle=Jean Sorelle, Ltd., 76 Great Portland Street, London, W.1. 01-580-1312.
1320 WSP=West-Siltan Pharmaceuticals, Ltd., 65 Western Road, Hove, 3. Brighton 31012.
1454 Dermal=Dermal Laboratories, 247 Gray's Inn Road, London, W.C.1. Terminus 3070.
1469 Caron=Parfum Caron, Wirral Industrial Estate, Moorside Road, Winchester, Hants. Winchester 62131.
1560 JSPD=Jean Sorelle, Ltd. (Promedico Division), 76 Great Portland Street, London, W.1. 01-580-1312.

THIS WEEK'S CHANGES

Prices are given in the sequence: Trade price per doz./purchase tax per doz./retail price (bold if maintained), thus:—17s 11d/4s 3d/2s 3d. A dash — in any column indicates that the manufacturer has provided no figure appropriate to that column.

nycin T (1263 Upjohn) TS				loz	804 309 8	75 6	45 0	Hycal (103 BF)	72 0	9 4½	—
ules 250 mgm				talcum powder	831 39 7	9 8	5 9	(2 doz)	28 0	(2 doz)	3 6
16 19 6ea	—	—	—	Comfy (672 Johnson)	25 22 0	—	2 9	● Infa-care (1584 H-C)	—	—	—
100 117 4ea	—	—	—	nappy liners	50 40 0	—	5 0	D Jay (668 Jay) eyelash curlers	—	—	—
60 mils 9 4ea	—	—	—	Coprol (397 Dunster)	50 19 6ea	—	29 3	I Jicky (548 Guerlain)	—	—	—
rox (746 Lederle) ts4B	25 8 2ea	—	12 3	capsules	200 69 2ea	—	103 9	creme hydratante	—	—	—
lets 50mgm	100 31 8ea	—	47 6	500 166 3ea	—	—	249 4½	110 gm	—	—	33 0
rox-R (746 Lederle) ts4B	25 9 10ea	—	14 9	1000 315 0ea	—	—	472 6	100 gm	—	—	21 0
lets	100 38 4ea	—	57 6	C Cycloserine (678 Kabi) TS				3½yd x lin	19 0	—	2 2
son (76 Atkinson)				(distributors 1545 Vestric)				Kodak (711 Kodak)			
up toilet	4860 15 6	3 9	2 3	capsules 250mgm	50 68 4ea	—	102 6	● Instamatic camera	172 9½	43 2	309 0
ath	4861 22 4	5 5	3 3	500 633 4ea	—	—	950 0	"304"	—	—	—
ist (495 Gardner)								Retina cameras	—	—	—
ical sprays	1010 136 0	—	17 0					case 67145	81 9½	20 5	146 3
	1015 116 0	—	14 6					case 67146	102 4½	25 7	183 1
	1020 156 0	—	19 6					Retinette camera	—	—	—
	1030 144 0	—	18 0					case 67112	49 3½	12 4	88 2
	1040 200 0	—	25 0					projectors	—	—	—
	1042 200 0	—	25 0					A Carousel S	942 6	—	1450 0
	1050 120 0	—	15 0					Kopil (667 JCL)			
	1045							cameras Kobena			
	1072							121 JK72	—	—	579 9
ite (1530 Fison)								321 JK71	—	—	999 9
em (1530 Fison)								421 JK70	—	—	1239 0
41 (1393 BRL) TS								D Super Eight entry			
ules 125mgm 20	8 0ea	—	12 0	C Delrosa (976 PS&T)				C Litesome (1581 Litesome)			
100 33 0ea	—	—	49 6	rose hip syrup 18oz	58 6	—	6 6	athletic slip	44 6	4 3	5 11
50mgm	100 14 9ea	—	22 1½	D Easi-Tweezi (668 Jay) tweezers				cricket guard	35 0	8 4	5 0
100 64 6ea	—	—	96 9	Epsikapron (678 Kabi)				cushioned	65 7	15 7	9 6
500 309 0ea	—	—	463 6	(distributors 1545 Vestric)				Supporter			
up 60 mils 7 3ea	—	—	10 10½	Estee Lauder (425 ELC)				cricket	63 11	6 1	8 6
lets 125mgm 20	8 0ea	—	12 0	● knee-glow	—	—	22 6	standard	56 5	5 4	7 6
100 33 0ea	—	—	49 6	● satinee shave	—	—	37 6	nylon	79 0	7 6	10 6
500 154 6ea	—	—	231 9	● water-proof leg	—	—	37 6	Mayfair	124 2	11 9	16 6
20 14 9ea	—	—	22 1½	● make-up	—	—		Royale	192 0	18 3	25 6
100 64 6ea	—	—	96 9	● Eucarbon (802 M5)	100 60 0	15 0	8 9	pouch	37 7	3 7	5 0
500 309 0ea	—	—	463 6	tablets				swim	41 4	3 11	5 6
age (76 Atkinson)				Halex (560 Halex)				support			
rfum de toilette	812 309 8	75 6	45 0	combs				knee, latex felt	60 0	14 4	8 9
rfum mist	815 113 6	27 8	16 6	D Imprene pocket				padded	56 0	13 4	8 0
rfum purse	801 51 8	12 6	7 6	I Prolene pocket				flat padded			
oz	802 86 0	21 0	12 6	C hairbrushes ladies				supporter			
oz	803 161 6	39 4	23 6	Carefree D366	41 3	10 4	5 11	BIF			
								BIF 10			

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High Street, Prestatyn, Flintshire. Prestatyn 32
678 Kabi=Kabi Pharmaceuticals, Ltd., Bilton
Uxbridge Road, London, W.5. Ealing 4717.
1584 HC=Hadleigh-Crowther, Ltd., Caversham
tories, Caversham, Reading, Berks. Reading 73;